

The American Economic Review

SEP 10 1927

VOLUME XVII, NO. 3

SEPTEMBER, 1927

BOARD OF EDITORS

J. M. CLARK
JOHN DSE

F. H. KNIGHT
E. G. NOUSE

F. M. PATTERSON
R. S. WESTERFIELD



MANAGING EDITOR
DAVIS E. DEWEY

Orientation of Economics on Enterprise

FREDERICK BARNARD HAWLEY 409

Factors Affecting the Bargaining Power of

Workers in the Glass Bottle Industry . . . H. LA RUE FRAIN 429

Mathematics in Economic and Business

Statistics . . . W. L. CRUM 448

Does Trade "Follow the Dollar"? . . . A. P. WINSTON 458

A Salt Famine in Ecuador . . . F. W. FETTER 478

Reviews and Titles of New Books . . . 480

(For complete list of books, see second page of cover)

Periodicals . . . 553

Twenty-fourth List of Doctoral Dissertations . . . 574

Documents, Reports, and Legislation . . . 601

Operating Combination in Canadian Industry . . . V. W. BLADEN 601

Notes . . . 607

Publication Offices: St. Albans, Vt. and Evanston, Ill.

Subscriptions: American Economic Association, Northwestern
University, Evanston, Ill.

Editorial Office: 222 Charles River Road, Cambridge, Mass.

Entered at the Post Office, St. Albans, Vt., as second-class mail matter. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized June 11, 1921.

Copyright, 1927, by American Economic Association

Price, in paper \$1.35

General Works, Theory and Its History

Book Reviews

ANGELL, <i>Theory of International Prices</i> , by O. Ingraham	485
LENDAY, <i>Karl Marx's Capital</i> , by J. E. LeRossignol	483
STRICK, <i>Angewandte Lohntheorie</i> , by O. Morgenstern	484
WEATHERLY, <i>Social Progress</i> , by F. H. Knight	487
WEIGMANN, <i>Kritischer Beitrag zur Theorie des Internationalen Handels</i> , by J. W. Angell	488
Titles of New Books	486
Periodical Abstracts: Theory , by M. A. Copeland	553

Economic History and Geography

Book Reviews

THOMAS, <i>Mercantilism and the East India Trade</i> , by A. P. Usher	489
DE FREMINTVILLE, <i>Evolution de l'Organisation Scientifique du Travail à propos de Congrès International de Bruxelles</i> , by E. B. Dietrich	490
BEARD and BEARD, <i>The Rise of American Civilization. I. Agricultural Era. II. Industrial Era</i> , by A. P. Usher	493
GILLESPIE, <i>Labor and Politics in England, 1850-1867</i> , by A. P. Usher	494
LEWIS, <i>Overseas Official Publications</i> , by L. S. Turnbull	496
MAXWELL, <i>Discriminating Duties and the American Merchant Marine</i> , by M. S. Wildman	497
NEWBIGIN, <i>Canada, the Great River, the Lands and the Men</i> , by H. A. Innis	497
NOLAN, <i>Monetary History of Ireland: Ancient Ireland</i> , by N. S. B. G.	498
SÉE, <i>Economic and Social Conditions in France during the Eighteenth Century</i> , by A. P. Usher	499
SHERMAN, <i>Diplomatic and Commercial Relations of U. S. and Chile, 1820-1914</i> , by A. P. U.	500
Titles of New Books	493
Periodical Abstracts: Economic History, United States , by A. C. Ford ...	534
Economic History, Foreign	555

Agriculture, Mining, Forestry, and Fisheries

Book Reviews

BENTON, <i>Introduction to Marketing of Farm Products</i> , by P. L. Miller	501
SURFACE, <i>American Pork Production in the World War</i> , by R. A. Clemen ..	506
FORSEY, <i>Economic and Social Aspects of Nova Scotia Coal Industry</i> , by H. A. I.	506
Titles of New Books	506
Periodical Abstracts: Agricultural Economics , by A. J. Dadisman	556

Manufacturing Industries

Book Reviews

AIKMAN, <i>Automobile Industry of Canada</i> , by H. A. I.	508
Titles of New Books	508

Transportation and Communication

Book Reviews

TOMES, <i>The Port of Montreal</i> , by H. A. I.	510
Titles of New Books	509
Periodical Abstracts: Railways and Transportation , by J. H. Parmelee ...	558

Trade, Commerce, and Commercial Crises

Book Reviews

CONRAD, <i>Absatzmangel und Arbeitslosigkeit als Dauerzustand</i> , by R. R. W.	511
Titles of New Books	511
Periodical Abstracts: Commerce , by H. R. Tosdal	558
Documents, Reports, and Legislation	561

(Continued on page 3 of cover.)

The American Economic Review

VOL. XVII.

SEPTEMBER, 1927

No. 3

THE ORIENTATION OF ECONOMICS ON ENTERPRISE

When I first engaged, many years ago, in the serious study of economics, I was greatly disturbed at my inability to discover any authoritative definition, or even any generally accepted comprehension of its fundamental terms,—namely, the exact scope of the science and the precise character of the four productive factors and their inter-relations. Such conceptions as I found, though sufficiently near the truth to serve to a considerable extent for the solution of practical questions, though still more or less misleading and equivocal, were never the same for any considerable number of economists and not always the same for each individual economist. They all seemed to me to be mere intuitions, founded upon an inductive analysis of the actions of individuals and necessarily lacking in authority and agreement. The hope therefore of obtaining precise and authoritative conception of these fundamental terms underlay all my economic thinking and reading. Having finally arrived at conclusions that appeared satisfactory to myself, I published them twenty years ago in book form.¹ Some of my ideas were promptly accepted, though the scheme as a whole has never been discussed. As all the new ideas I advanced are closely connected, and as since I wrote there has been a marked approach to a number of them, I am asking in this article for the reconsideration of the scheme as a whole.

The essential ideas of my book were certainly not in accord with those prevalent at the time. It would be rash to assert that some of them had not been anticipated by some more or less obscure writer; but to the best of my knowledge they were original with me. These definitions and theories were nine in number:

First. The application of the principles of classification for the obtainment of authoritative definitions.

When there exists an undisputed general class, in which the phenomena in question are certainly included, it is always possible by diligent search, trial and error, to discover eventually the one most

¹*Enterprise and the Production Process*, 1907, G. P. Putnam. The work is now out of print, but can be found in many college, university and public libraries. The author has a few copies left, and will be pleased to send one to any professor of economics who has not access to a copy and desires it as an aid to writing a criticism of this treatise.

radical peculiarity, or class mark, which segregates the phenomena in question. A definition so obtained is necessarily authoritative, unless it can be shown that the peculiarity selected is not the most radical.

What I had to say about method and classifications was the one idea of my book that met with no dissent, indeed with general acquiescence, much of it enthusiastic. Nevertheless I have yet to learn of any other economist who has applied the principle in practice. I gave, however, practical demonstrations of its applicability in my definitions of the scope of the science, and of the four productive factors, as will appear later on. And I believe myself entitled to claim these five definitions to be authoritative.

Second. An authoritative definition of economics, obtained by the process of classification, which precisely differentiates economic from other human activities, thus determining the exact scope of the science.

In applying classification for the purpose of defining the scope of economics, we find two propositions so firmly established that their validity is not open to question. There is, therefore, no excuse for waiting on further investigation before using them as established premises for deduction. First, that all human activities, both physical and mental, are the general class of which economic activities are a sub-class. Second, that human activities are divisible into three universally recognized sub-classes—Individualistic, Economic and Social. The problem is therefore resolved into finding by trial and error or otherwise, the special peculiarities which most radically differentiate these three classes. It is also certain that differences in the character of the purposes which actuate the three forms of human activities are the most radical distinctions which exist.

The results of relying on intuition to determine the definitions of economics have been so unsatisfactory that economists seem to have abandoned the attempt in despair. They no longer show any interest in the problem, which may make it difficult for me to get a hearing.

My conception of the scope of economics can be formulated as follows:

Economics is the study of that class of human activities wherein there is a definite and predetermined distribution by the entrepreneur, among the productive factors, of the purchasing power arising from the creation of material commodities and services.

The process by which I arrived at my definition is as follows:

Men act alone, or in combination with others. In the first case the activity is individualistic, and does not concern us here, further than to point out that economists are, as is shown elsewhere incidentally, in the habit of treating many purely individualistic activities as economic. Combined activities are, however, either economic or social. What

makes them such must be a difference in their impelling motives. In individualistic activity the whole benefit accrues to the individual, as he exercises all of the productive functions engaged and little or no discrimination between them. There is no distribution.

In combined activities there is necessarily distribution, which may be either definitely pre-arranged or left indefinite, and subject to future and unforeseeable influences. It is impossible to imagine any more radical difference in motive than this. Practically it is the difference between egoism and altruism. Upon this distinction, therefore, and on no other, the line separating economic from social activities is to be drawn. This conclusion is so imperative, and the determination by it of just what activities are economic so definite, that economists, for whom this paper is written, will hardly demand further concrete illustration. It is well, however, to take notice of the fact that the economic entrepreneur is the distributor; and what he divides among the subsidiary productive factors is not definite portions of the commodity or service created (that he reserves for himself) but of the purchasing power obtained. He pays money (purchasing power) to the laborers, capitalists and owners of opportunities, reserving for himself the actual product, which he converts into purchasing power as soon as he is able to do so at a satisfactory price. Economists, though more so in the past than at present, are accustomed to treat the three subsidiary productive factors as combining to produce. This manifestly they cannot do. They are, to be sure, combined; but the combination is effected by the entrepreneur. He is the only combiner. They are combined by him and not by themselves. He is active; they passive. Anyone able to grasp the above facts, and their necessary connotations, will grant the entrepreneur a very much more important place in theory than has yet been accorded him by contemporary thinkers. They must recognize his uniqueness and his supremacy over the three subsidiary factors of production.

It will of course be noted that the definition of economics here advocated narrows the scope of the science below present conceptions; and this circumstance will undoubtedly prejudice many of my readers against it, especially those who dub themselves welfare or social economists. I trust, however, that they will also note that it does not ignore their problems, but only transfers them to technology and sociology, where they really belong, only demanding that economic facts and principles should be utilized simply as data.

It will also antagonize those not logical enough to appreciate that economic distinction and classifications must be based on function and not on the individual. The incomes of individuals are always composite. It is impossible for any individual to exercise any one of the productive functions entirely alone. The entrepreneur must also be a capitalist,

or he could not command the credit essential for his undertaking. He must also, at the very least, make a choice of what stocks he will buy, what enterprises he will engage in, or choose someone else to select for him, an act of management or intellectual labor; and very often he acts as his own manager. There is also involved some physical effort on his part, though sometimes very little. The capitalist also, in making a loan, exercises some physical and mental effort, utilizes opportunity of an office, or at least his hat, and subjects himself to more or less risk. Indeed his income, arising from a commercial loan is nearly half payment for risk (that is profit). Capitalists will loan to government at about three per cent, as such a slight element of risk is involved, whereas they will demand from five to six per cent on commercial loans. As an individual, the capitalist necessarily combines to a considerable extent the function of entrepreneur with his special function. On the other hand, the incomes of the entrepreneur "as such," the capitalist "as such," the owner of opportunity "as such," and of laborers "as such," are not complex. Economic theory, to arrive anywhere, must confine itself to their consideration, leaving applied economics to inquire into the complexities of individual incomes. Yet nothing is more common than such illogical assertion as that, because the enterpriser "as such" is also a manager, the reward of his management is a profit. The absurdity of this claim, a very common one indeed, and one made unconsciously by perhaps a majority of writers, can be made conspicuous by the following consideration. The reaper is one who reaps. It does not follow because he also sows that the man who sows is a reaper, or that sowing is a form of reaping. Factors must be defined by functions, not functions by factors. If we are not to distinguish between the entrepreneur "as such," and the individual who exercises the other functions conjointly with that of enterpriser, all income, of whatsoever kind, becomes profit, and there are no such things as wages, interest, and rent, as everybody is either an individualistic, social or economic entrepreneur.

The development of character is primarily an individualistic matter. Likewise good government is primarily a social matter. Welfare also is primarily either an individualistic or social matter. Secondly, they all exert profound influence on economic activities. This, however, fails to make them economic activities themselves. They are only data of economics. On the other hand, economic activities profoundly influence the development of individual characters, the development of social relations and general well-being; but this does not make them individualistic or social activities—only data of those sciences.

I claim for my definition of the science of economics that it clearly and accurately excludes all primary individualistic and social activities, and includes all human activities that are primarily economic. Unless

instances can be adduced in which the definition fails in this, the logical necessity of adopting it is imperative. Certainly no other previously proposed definition comes anywhere near meeting this test.

The definition of the science here advocated will antagonize or modify a good many present conceptions, which will not be abandoned without a struggle, but it certainly possesses one great advantage. Namely, the phenomena (all unquestionably economic) segregated by it have closer logical connections and are more subject to the same common influences than in the other groupings which have preceded it.

Third. That the four productive factors, usually treated as peculiarly economic, are really involved in all human activity whether physical or mental.

On this point, and also upon the fact that all individual incomes are complex, I have anticipated so fully what belongs particularly to this division of the subject that I need not recapitulate. Both of these truths, when properly presented, are so self-evident that no one, I believe, will try to controvert them. Yet twenty years ago when my book was written, and to a large degree even now, they are practically ignored, from which has originated some very considerable confusion of thought. That I was the first to call attention to them, I should not care to assert; but I do not remember any statement of them elsewhere. The orientation of economics on enterprise necessarily forces them upon our attention, and they are properly credited to it. There is a marked tendency among economists, especially when statisticians or accountants also, to classify individuals in accordance with their assumed principal function, ignoring the fact that, as individuals, they necessarily exercise one or more of the other productive functions conjointly. As they do so in varying degree, such classification is worthless for scientific theory, which must confine itself to the consideration of the four productive factors "as such" only. In other words, each of these factors must be defined and classified strictly in accordance with the one fundamental peculiarity which distinguishes it. We must define factors by functions and not functions by factors. The two facts mentioned under this heading should surely underlie, consciously or unconsciously, all economic thinking and discussion.

Fourth. A new definition of the function of the entrepreneur or enterpriser.

Twenty years ago, risk was seemingly regarded as merely a matter of insurance, and management as the peculiar function of the entrepreneur. I then pointed out that management was only intellectual labor, rewardable, not by profit, but by wages or salary, as the manager could be hired. That, as profit or loss was admittedly a residue, it

could only accrue to those who submitted themselves to uncertainties, and assumed the risks attendant upon undertakings. Organization which has been stressed lately is only another word for management.

I further showed that, though there were gamblers, to whom the love of excitement was a sufficient inducement to accept risks, even when they were aware of the chances against them, no business men, even the aforesaid gamblers in their business relations, ever subjected themselves to uncertainties at what they considered their actuarial value, demanding always a very considerable percentage in their favor. Since on the average, business men were correct in their estimates, profits absorbed a considerable portion of the purchasing power annually created. As uncertainty (except to the gambler who creates no purchasing power) is always irksome in different degrees among individuals, the entrepreneur performs a service to those he relieves of it, for which he receives a reward, which, if competitive conditions were perfect, would be exactly his due.

I further called attention to the fact that when the entrepreneur, by insurance, transferred some of his risks to others, thus lessening the responsibilities he had assumed, he resigned to the insurers a corresponding portion of his otherwise expected profits. Neither the risk nor its reward were extinguished, but only transferred. The most important part of his risk, however, that involved in the ownership of the product, cannot be shifted by insurance, but only by a sale, which of course terminates the exercise of his peculiar function.

I also pointed out that the assumption of responsibility gave the entrepreneur not only a peculiar, but a dominant position in the economic productive process. It makes him the only factor animated by economic purpose, the purposes of the three other factors being purely individualistic. It makes their purpose subservient to his. It gives him the direction of their efforts. They depend upon him for the exercise of their economic functions. They only furnish means for the attainment of his objects. It makes him the only creator, and the only owner of economic capital goods. In short, he dominates the whole economic productive process. In view of these indisputable facts, how can economists longer deny him his proper position in economic theory? How can they longer shut their eyes to the fact that economic theories must be orientated on his function?

How foreign this conception of the enterpriser's function was to the best thought of twenty years ago, is well shown by the fact, that so great a thinker as Professor John B. Clark, the leading economist of his day, and of to-day also, in criticizing the risk theory of profit, claimed that the assumption of risk was a function of the capitalist "as such" because he was the only one with anything to lose. This claim of Professor Clark overlooked the fact, well recognized at the time,

that all capital goods were, despite their poverty, in the actual possession of entrepreneurs "as such" and that the capitalist "as such" could not possess any capital goods at all, despite his ownership of all the purchasing power. It also assumed that a productive factor—capital—definable only in terms of its function, could exercise two radically distinct functions, and receive two radically distinct forms of income under one caption.

Fifth. That the unique position of the entrepreneur made him and his peculiar function enterprise, namely the assumption of responsibility, the pivotal facts in economic theory on which the science should be oriented.

Professor Carver alone, so far as I am aware, publicly recognized that my book advocated a new orientation of economics. He said (I quote from memory) that, although undoubtedly a consistent scheme of the science could be erected on the function of enterprise as its basis, he did not see much promise of practical benefit resulting. At present there is no accepted orientation of economics. Each economist, to be sure, is apt to emphasize some particular fact or theory as fundamental. But not only is there no agreement on where to place the emphasis, but each economist is apt to change his own emphasis to suit the exigencies of his argument. Some will doubtless defend this attitude, and deny that any orientation is necessary or advisable. My reply to which is that, as all human actions are governed by purpose, the only economic factor governed by economic purpose (the purpose of the three subsidiary economic factors being purely individualistic) is necessarily the governing factor in economic activity and therefore the only pivotal point on which all economic thinking must revolve. As previously shown, the purpose of the other three productive factors, which furnish means only, is individualistic; and these factors only become economic when their results are combined by the entrepreneur to serve his own purposes. Is not the growing, though yet incomplete, appreciation of the entrepreneur a marked approach to my conception of him?

To show the full extent in which Professor Carver's doubt is baseless, would require a re-writing of the science, a task beyond the scope of this paper. Suffice it here to point out a few instances in which the orientation here advocated would have been of benefit.

If Adam Smith had discovered the entrepreneur and oriented the science on enterprise, the idea that capital employed labor would have been simply unthinkable. The wages fund theory could not have occurred to anyone. We should have been spared the long, muddled and fruitless discussion between its advocates and its rejectors.

The claim that "labor produces everything" an idea still tenaciously held by many and responsible for great harm, politically and socially,

would never have been conceived had it been generally recognized that purpose alone is creative and that the laborers' purpose, his wage, is individualistic, not economic. If it had been understood that capital cannot exploit labor, because it has no direct relation with labor, but only indirect relations through enterprise; also that, when competition is free, enterprise cannot exploit labor, because, except temporarily, it has to pass on to the consumer anything extorted from wages, we should have been spared Marxism. Marx's whole argument is founded upon the assumption that there is no limit to the expansion of capital, or to its profitable employment by enterprise. The iron law of wages, as formulated both by Marx and Ricardo, ignores the fact that the injuries arising from overpopulation are largely resolvable into the effects of a decrease in productivity "per capita," from which entrepreneur, capitalists and owners of opportunity would also suffer. The real enemy of labor is neither the capitalist "as such," nor the entrepreneur "as such," but the opportunist, if I may so call him, who narrows the field of free competition. If the science had, at an early period, been orientated on enterprise, the fallacy of Marx's argument would have been at once apparent even to him; and the whole character of labor's struggle for better terms would have been altered.

Turning from the past to the present, labor leaders show scarcely any conception at all of the function exercised by entrepreneurs. To some extent indeed they fight for better conditions, which is of course commendable; but their main struggle is to raise money wages. A gain in money wages, either of a class, or of the whole body of laborers, cannot possibly increase the total of real wages received by the class as a whole. If general prices rise proportionally, the rise in money wages can be maintained. This, however, raises the cost of living, so that real wages remain the same. If general prices do not respond, their rates of profit being lowered, entrepreneurs restrict production, and unemployment sets in. While the laborers who are not discharged make a gain in real wages, there are fewer of them. The average of real wages of the employed and unemployed, taken together, are less than before, because as the total product of industry is lessened, there is less to be divided. And this state of things must continue until the old ratio between wages and profits is restored.

The only possible ways of increasing real wages are by increasing the efficiency of labor, curbing monopoly, decreasing the risks entrepreneurs must assume, prolonging the laborers' working years by sanitary and safety regulations, absorbing the gains due to science and invention, in accordance with General Walker's *Residual Theory of Labor*, and, as will be shown hereafter, restricting the increase of national, state and municipal obligations issued for unproductive, or only socially productive, purposes. It is needless to point out how

profoundly the contest erroneously spoken of as between "Labor and Capital" would be affected by the general acceptance of the orientation of economics on enterprise, and the involved conception of the entrepreneur, and the importance of his functions, and the disentanglement of pure profits from other forms of attendant income, especially that of the owners of opportunity.

Sixth. A consideration of labor strictly derived from its relation to enterprise.

Orienting economics on enterprise involves the necessity of defining labor strictly in terms of its relations to the controlling factor. What are those relations? What services that labor, either of others or of himself, can render does the entrepreneur require for his purposes? Manifestly it is arrangement, transference of material things, either in space or form, by the manual laborer, and arrangement of ideas in logical form by the mental laborer. Perhaps no one will dispute the accuracy of this definition. Hardly anybody, however, recognizes all its implications, some of which are as follows:

The hired laborer is not the creator of any economic quantity whatsoever. Instead of being the producer of everything, as socialists claim, he produces nothing so far as economic science is concerned. Wages, the inducement to his rendering service, are a purely individualistic product. How the entrepreneur will utilize the service rendered is none of his concern, simply as a hired laborer. As purpose is essential to production, he cannot create any economic quantity, while his purpose is purely individualistic. A contradiction in terms is involved in the claim. The ideas or material commodities, resulting from his directed efforts, are of course economic quantities; but this results from their employment as such by his employer, which stamps them with an economic purpose. The laborer's purpose is not this, but the wages paid him. He has no claim at all to any commodities created but only to a definitely predetermined portion of the attendant purchasing power brought into being.

Neither can he be spoken of, as is the usual custom, as entering into a combination with the other productive factors. He does not combine. He is combined. The entrepreneur is the only combiner of the three subsidiary productive factors. Like the two other subsidiary factors, all the laborer does is furnish a means. He, himself is not a commodity; but the means he furnishes are exactly as much of a commodity as their services. He, to be sure, is human; but so are capitalists and controllers of opportunity human. That he is not so well able to look after his own interest as they, serves as a basis for claims upon individual benevolence and social legislation, but affords no ground for the demand that he should be paid more than he is worth economically, as

Gompers appeared to claim. No one, except extreme socialists and communists, desires to make him an indisputable commodity by enslaving him to the state as his master. Neither does anyone propose to treat capitalists and landlords as commodities; but the services they render, like those laborers render, are commodities.

Seventh. Capital is not a gross sum of concrete capital goods, or of the flow, but of their transferable purchasing power, together with any purchasing power possessed by immaterial products or rights.

When I published my book, twenty years ago, capital was understood as a concrete mass of material goods devoted to productive use. Elsewhere I have shown that a considerable amount of existing capital is unproductive, which fact alone is sufficient to establish the inadequacy of this idea. This definition is certainly ambiguous. It implies that some material goods are unproductive; but I have never met with any attempt to show what these goods are. All material goods are necessarily in the possession of entrepreneurs who have an economic purpose in retaining them. No one can retain them in possession without assuming the risk of ownership, without becoming, that is, an entrepreneur. Even the final consumer when he buys his potatoes by the barrel instead of by the peck, acts as an individualistic entrepreneur. The barrel in his cellar serves a purpose of convenience which he considers greater than the loss of interest involved. The barrel has, however, ceased to function as an economic capital good. It has passed out of the domain of economics. Possibly it was intended to exclude such things as idle factories. The owner of the factory does not, however, take that view of it. He includes its present value among his capital assets. It still possesses transferable purchasing power and can serve as security for a loan. If the factory is wholly useless, and only cumbers the ground, it has ceased to be a good of any kind. It has vanished from the domain of economics. When analyzed, this old definition is found to exclude nothing. All material commodities remain capital goods to the extent of their present market value. No wonder, therefore, that the old economists dodged the attempt to show just what material goods were not productively employed. All existing material commodities are necessarily economic capital goods, except those in the possession of final consumers and those in the possession of individualistic or social producers. We have here another old error due to the failure to base economics on enterprise.

This old definition involves three other palpable absurdities, the non-perception of which was due to ignoring the entrepreneur, or attributing his function to the capitalist, or the manager. These absurdities are first: the tautological error that a thing could be the same thing in which it was invested. Second: that the possession of

capital goods earned interest. Such retention is a cost, the difference between which and the final selling price is a profit or loss, as the case may be. Third: that when money was loaned, the virtual loan was not of money but of the capital goods the borrower bought with the money. Professor John B. Clark makes exactly this assertion in one of his footnotes. He also proposed that capital should be considered not as a *sum* of concrete capital goods, but as a *flow* of concrete capital goods, poured in at one end by producers and depleted at the other end by final consumers. This, at the time, was the most advanced conception of capital. But I have never met with any attempt to show how a flow could earn interest.

Now, when we adopt enterprise as our viewpoint, the very first question that presents itself is: What does the enterpriser require of the capitalist, for which he is willing to pay pure interest, together with something additional to cover the risk involved? The entrepreneur "as such" has no means of his own; yet he must pay wages, buy raw material and hold his product until the final consumer is ready to take it off of his hands. Would the loan to him, by the lender of such capital goods as he happened to have on hand, serve the entrepreneur's purpose? Manifestly not, unless the laborers, the owners of raw material, the controllers of opportunities and the banks who carried for him his goods in stock, were willing to accept in payment of their claims the exact concrete capital goods loaned to him. A manifest absurdity. Neither, if we accept Professor Clark's suggestion, would any of these parties take their pay in the capital goods that the entrepreneur bought with the money loaned him by the capitalists. What all these parties demand is money, or purchasing power; and it is simply purchasing power that the entrepreneur desires the capitalist to furnish him with, and for which he is willing to pay interest. Capital, recognized by every one as the only earner of interest, cannot possibly be anything else than transferable purchasing power, as that alone commands interest.

The relation between capital and capital goods can perhaps be made plainer to obtuse minds by comparing it to the relation between the mortgage and the farm; capital and the mortgage earn interest, capital goods and the farm earn a profit, or a loss, as the case may be.

Professor Schumpeter of Austria accepted and utilized this idea, crediting me with its origin. And one of our most distinguished economists said to his class, according to a student, that the idea was one he had been feeling round for all his life. With these two exceptions, I know of no one who has publicly endorsed my definition of capital. But what is far better, no economist of the present day considers capital goods either in mass or flow, as capital. Everybody practically treats transferable purchasing power as capital. I may therefore regard

this contribution of mine as fully established, and as an instance of how focusing economics on enterprise can help to solve economic problems. Another such instance will appear under the ninth head of this treatise, which also treats further of capital.

Eighth. A consideration of rent and monopoly (or more properly opportunity) also strictly confined to its relations to enterprise.

The entrepreneur "as such," either by his hired manager or by himself individually, adding the function of management to his fundamental function of risk taking, is always keen to avail himself of the most effective methods of utilizing the labor and capital he controls. Opportunities originate by appropriation. They are seized. When such opportunities are owned or controlled by others, he obtains the use of them by the payment of a rent, or royalty, which he adds to his economic cost of production. He expects, of course, that the advantage obtained will be worth more to him than the rent or royalty he pays to obtain it; and this difference, often considerable, is of course a profit. When, however, he purchases, or acquires otherwise, the ownership of an opportunity, all that part of his income due to its utilizations is not profit, but is rent or royalty. His income is composite. Individually he becomes a dual factor. This is a very important distinction, almost entirely ignored by business men, accountants and labor leaders, and largely overlooked by economists. Its importance is due to two circumstances, namely, that much the greater part of the gains of the inordinately rich arise from the ownership and control of opportunities, and secondly, that opportunities are so frequently obtained illegitimately, and used extortionally. Opportunities, such as land created by nature, those granted by our patent laws as an incentive to invention, by copyright as a stimulus to literature, those due to the exceptional ability of a manager, are, of course, not subject to this criticism; but all others are, though in greatly varying degrees. The real enemy of the laborer is neither the capitalist "as such" nor the entrepreneur "as such" but the opportunist, if we may so dub him. He it is also, who is the restricter of competition, and the favorer of the already rich in distribution. It is against him, and him only, that the trade union should wage war. At present they confine their efforts mainly to inducing entrepreneurs to work for less by increasing their burden of risks and responsibilities.

On the other hand, there is something, indeed much, to be said in defense of the creators of opportunities. They are the mainspring of progress and material civilization. Everyone is always on the lookout for better ways of accomplishing his objects, and retains control of these better ways, so long as he can. He never can effect this forever.

The resulting benefits inevitably gravitate towards the public, though sometimes they are a long time in settling at the bottom.

It would be superfluous to point out how much muddy thinking and superfluous argument has arisen from failure to discriminate rent from profit. The distinction fairly obtrudes itself, when we orient economics on enterprise, as our first inquiry necessarily is—what does the entrepreneur want opportunities for? The attempt to analyze is hopeless so long as we persist, as at present, to treat the larger part of rent as profit.

Ninth. That fluctuations in the business cycle were dependent upon fluctuations in the ratio which savings bore to the field for their profitable employment or investment.

This division of my argument should perhaps more logically appear as a continuation of my seventh head, but I have treated it separately, because it refers to a problem under present discussion.

Twenty years ago, when I presented my theory of the business cycle, it met with nothing but sarcasm and ridicule. Lately, however, the theory has been independently revived by Douglas, Hobson, and Foster and Catchings, though without any acknowledgement to me. It has at least won for itself a more or less respectful hearing.

I cannot regard any of these attempted revivals of my theory as altogether satisfactory. No one of them arrives, or attempts to arrive, at the statement of the general law governing the business cycle. None of them note the influence of variation in the field for investment. Hobson and Douglas simply recognize the fact that during hard times there is an excess of unsold consumable goods, due to excessive saving by the rich, which would be rectified by a more equal distribution of income. Their hatred of what they call profit blinds them to the true nature of profit, and to a good deal besides. They fail to perceive that the expectation of profit is the incentive to every human activity—individualistic and social, as well as economic—that enterprise, the source of profit, is alone creative. They ignore that the assumption of responsibility is a real service, and that under free competition enterprise would receive only its just reward. As I have shown elsewhere, what they consider profit is mainly royalty, and it is from royalties and the limitation of competition that excessive fortunes are built up. There are other ways of curbing monopoly, and freeing competition, than the destruction of the existing industrial order. All the credit they are entitled to is the recognition of a fact, the relations of which they fail to explain or understand.

In Foster and Catchings' books we find a much better conception of the problem. Their criticism of Douglas and Hobson seems to me sound and conclusive. I do not think I misrepresent them in claiming

their conceptions of the scope of the science—their exclusion of welfare and social economics, their recognition of the function of enterprise and the controlling position of the entrepreneur, are near approaches to my ideas promulgated twenty years ago. As are also their views of the business cycle, which are correct as far as they go. Their faults are mainly those of over-emphasis and omission. They do not go far enough. They practically ignore the influence of fluctuations in the field of profitable investment, which is half the problem. Consequently, they are unable to formulate any general law of the business cycle and make little or no statement of the period of readjustment, or to formulate the causes of the periodicity of the cycle and of the causes which disturb that periodicity. They, as well as Douglas and Hobson, attribute the whole trouble to excessive savings, whereas during a part of the cycle it would be beneficial to stimulate saving. They fail to recognize that regulation of saving should be worked both ways. Moreover, they greatly exaggerate the influence of "ploughing in." If what is now "ploughed in" was distributed in dividends and the corporations obtained a similar sum by the sale of bonds and stock, no extra stimulus to saving would arise. To a large extent this would be done—say two-thirds. The influence of "ploughing in" only counts for perhaps a third as much as Foster and Catchings appear to suppose.

Their statement that lack of money prevents consumers from buying commodities as they are created, is too strong. They can always eke out by infringing on their capital. This is just what happens during the period of readjustment, during which consumers purchase not only all products as created, but all the accumulated stock of old commodities. Despite having relatively little or no more, indeed usually less, money furnished them by producers, they buy more than is produced. Of course, consumers cannot live on their capital forever; but they can and do live on it for very considerable periods. Foster and Catchings' shortcomings are due to their effort to orient economics on money, which is untenable because money is used both individually and socially as well as in economic activities.

That the ratio between saving and investment, not only can, but necessarily does, vary in both directions, is covered by my statement of the general law of the "business cycle"; the whole ground is covered and a general law announced, as is not the case in their statements.

Once we begin an investigation as to the nature of capital, by the inquiry as to what the entrepreneur requires it for, what he will do with it, when it is loaned to him,—we find he uses it to pay wages, interest and rents, and for raw material, thereby obtaining capital goods, which, so far as he alone is concerned, can take but two forms: namely, consumable goods, held for a market (circulating capital goods) and more permanent goods withheld from the market for use as tools (fixed

capita
saving
machi
him.
To wi
to the
him.
goods
His i
ducin
to wh
modi
every
cost
Less
find
port
comm
mod
dimi
so s
our
our
T
not
for
how
The
rete
fixe
can
the
den
goo
den
tha
ga
pr
sav
Th
ex
go
ad

capital goods). Now, neither of these demands are inexhaustible. If savings continue, the time inevitably comes when additional mills and machinery would cost the entrepreneur more than they are worth to him. He is forced then to discontinue producing fixed capital goods. To what use can he divert the purchasing power he can no longer devote to the creation of fixed capital goods? There is but one outlet open to him. He is forced to use it for the production of circulating capital goods, unsalable at a price that will yield him a satisfactory profit. His incentive to produce is taken away. Consequently, he stops producing, discharges laborers, confines his borrowing from the capitalists to what is required to carry his unsalable stock of consumable commodities. A general glut has arrived. That is, there is more of everything, on the average, than people will buy at a price equal to the cost of reproduction. At this point the reverse process is initiated. Less being produced, there is less for the public to spend. Consumers find it more and more difficult to add to their savings. A larger proportion of their incomes is devoted to the purchase of consumable commodities, at the same time that there are less consumable commodities produced, with the inevitable result of the stock on hand diminishing to, or rather below, normal proportions. All of this is so self-evident, when we adopt the controlling function, enterprise, as our viewpoint, that we need not further elaborate its presentation for our present purpose.

The old claim was that overproduction of consumable goods, could not occur because the supply of commodities constituted the demand for commodities, which claim is sound and correct. The conclusion, however, is a "non-sequitur," due to the failure to analyze demand. There are two kinds of demand—that for consumption and that for retention. And this latter is again divisible into two kinds—that for fixed capital goods and that for circulating capital goods which cannot be sold at market prices ruling at the time. Producers holding the consumable goods they have created, constitute a "producers' demand." It results, of course, in an over-accumulation of consumable goods, or, in other words, in a general glut. It is just as much a demand for commodities as that of the consumer, though it differs from that in being a forced, or unwilling demand, involving loss instead of gain.

My law of the business cycle also explains its periodicity. While prices are advancing, the incomes of the rich, who are the principal savers, are unusually large. They can and do spare more for saving. The presence of accumulation upon its limits is increased. To the extent in which the larger savings can be invested in new fixed capital goods, business activity can continue. But, when this gap is filled, additional savings are bound to appear in the form of large stocks of

consumable goods held by producers, and the forces of reaction come into play and remain potent until savings are less than the field for investment calls for.

There is another side of the problem which I have not yet discussed. This side is as to how the field for investment can be affected by extraordinary causes, which will necessarily interfere with the periodicity of the business cycle. The influence of savings is necessarily gradual, because accumulation is a comparatively slow process, tending to periodicity, whereas the willingness to undertake new ventures—to widen the field for investment—is subject to violent changes, due to unforeseeable and incalculable causes such as the outbreak of war, the sudden loss of a large market, the failure of a great bank or of a great commercial house. Anything, in short, which causes wide distrust and hesitancy, not only stops new investment but may lead to vigorous efforts to get out of obligations already incurred, and result in a sudden and positive narrowing of the previous field for investment. Men's activities are not governed by real circumstances, but by what they believe real circumstances to be. From these causes panics arise, and business becomes abnormally disorganized and disturbed. When they occur, the disposition to embark in new enterprises is practically annihilated. The long-time periodicity of the business cycle is mainly the result of causes affecting savings. Panics and other interferences with periodicity are mainly due to changes suddenly affecting the disposition to invest.

There is, however, one extremely important corollary of the law of the business cycle which demands the most earnest attention, not only of economists, but of all those interested in the happiness of the world, and especially of those interested in peace and in the welfare of the laboring classes. This problem is as to how public indebtedness affects the distribution of income between the various classes of society, between, that is, the four productive economic factors.

Granting as we must, after what has been said herein, that any permanent widening of the field for investment must result in a like permanent addition to the possible amount of accumulations, the following results inevitably follow when the government, national, state or municipal, sells bonds, the proceeds of which it uses for unproductive, or only socially productive, purposes. The first influence is a stimulus to business activity, due to absorbing savings that would otherwise tend to press upon the limitations of accumulation. It was perhaps this transient effect, intuitively perceived but misunderstood, by Jay Cooke, that led to his celebrated assertion that "A national debt is a national blessing." It also partly accounts for the business activity attendant upon war. This stimulus to business is, of course, transient, ceasing when the state stops borrowing, and is paid for by a depressing influence

in the future, whenever the state decreases its obligations, thus transferring a part of the burden of war upon future generations, and disproving, to that extent, the claim often made that there cannot be any such transference.

If in the past, nations, states and municipalities had conducted all their enterprises including that of war, on a cash basis, the gross total of the capital owned by the individual capitalists of the world would have been less than it now is, by the almost exact sum of the present public indebtedness of the civilized world,—and an addition to their annual income, of capitalists as a class, of almost the exact sum total of the interest paid them on the public bonds they hold.

International indebtedness, that is—debts owed by one nation to another—are not to be included in the above sum, as they are never put upon the market, and never owed by individual capitalists. They have lost their purchasing power, and with it any claim to be considered as capital.

The total of the sum of debt owed by nations to individuals is much less than it would have been if Germany, France and Italy and some other European nations had not virtually repudiated the greater part of their indebtedness to individuals by inflation and stabilization.

These limitations still leave the wealth and income unknowingly forced upon the capitalists, as a class, at the expense of the community—of very serious amount. As to the United States alone, a rough calculation indicates that the addition of this unproductive capital, to the wealth of the capitalists as a class, amount to about twenty-six billion and the yearly income they derive from it to about one billion two hundred million of dollars—a yearly tax of over ten dollars on each inhabitant of the nation. It is also probably a deduction of over six hundred million annually from the real wages of American laborers.

Now this vast transference of wealth and income to the capitalists, as a class, at the expense of the other productive factors is no fault of theirs. The state alone is blamable. The capitalists simply gave the state what it demanded and accepted the promise of the state in payment, in complete ignorance of the peculiar benefit to themselves, as a class, that would result. The state likewise can make the plea of lack of fore-knowledge of the effects that inevitably followed.

Now there is one very marked peculiarity of the addition to capital afforded by public bonds. It is unproductive capital. There is no creative power backing and guaranteeing it. Loans to entrepreneurs are made in the belief that they will be used productively; those to governments with the understanding that they will not be used productively, but that they will eventually be repaid, with interest, from the proceeds of taxation. Public bonds remain capital for they retain

purchasing power, absorb savings, and pay interest; but there is no corresponding amount of capital goods remaining in existence.

The momentous fact stated above is so evidently a necessary deduction from orienting economics on enterprise, and of defining capital in terms of its relation to enterprise, that it would have promptly unrolled itself to anyone who had attained a comprehension of capital and enterprise. It certainly suggested itself to me very shortly after I had arrived at such comprehensions. If it had been grasped a hundred or more years ago, the history of the world would have been different. How the loss of what is forced, as a gain, upon the capitalists is distributed among the three other economic productive factors is too intricate a subject to detain us here. The assumption, however, will not be extreme that more than half of the sum yearly paid out as interest on public securities, acts as a reduction of real wages. The realization of this would have arrayed a large and powerful section of the community, not only the laborers and all who were directly injured, but all lovers of justice and righteousness, against war and public extravagance. Once it becomes a popularly accepted idea that the issuing of public bonds involves a robbery of the community, especially wage-earners, for the benefit of capitalists, the section of the community, now perhaps the most careless, would naturally become the strongest advocates of peace and economy.

That governments should be required to conduct in the future their wars, as well as their other enterprises, entirely on a cash basis, is perhaps too much to expect. To do so would indeed reduce battles to skirmishes; but defensive wars,—and every war is claimed to be defensive by both sides,—must be fought regardless of which classes suffer most. Nevertheless, if the League of Nations can induce the great nations of the world to promise solemnly and agree to adopt the cash basis in future, the problems of peace and disarmament would be practically solved.

The fact that it is generally expected that the nations of the earth, or at least most of them, will in the future have a surplus over their running expenses to apply on a reduction of their indebtedness proves that their adoption of the cash basis is by no means impracticable. On the contrary a greater surplus to apply on indebtedness would result because their running expenses would be greatly lessened as preparedness against aggression became less imperative.

But when it is clearly perceived that the financial burden of war falls so disproportionally on the laboring classes, it will be much harder to arouse popular enthusiasm. The advocates of peace will have an argument, more effective, perhaps, because it touches the pocket, than any they are now able to present. Arousing a sense of personal injury and injustice in the large majority of the population, should surely

attach them to the cause of peace. It is also to be noted that, when the state proposes to borrow for enterprises, only socially productive, this transference of income to capitalists, at the expense of the community, should have its place among the pro's and con's.

Conclusion

Economists will accept a new idea of value that has struck some outsider more or less by chance. But when an outsider presents ten or twelve new ideas all in a bunch, the presumption is strong that he may be safely disregarded as a crank. Possibly this militated against a more serious consideration of my book. I had not made it clear enough that, among the various theories and definitions I proposed, there was one—the orientation of economics on enterprise—that was fundamental. That the others were all derivative from the application of that principle—necessary deductions from it—I believe I have made clear in this paper. If so, however the various ideas involved are considered and criticised separately, the decisive judgment should be on the scheme as a whole. There is a close connection between the various derived ideas. They support each other. Each tends to show the advisability of adopting some generally accepted orientation of economics which does not exist at present, and also to endorse the orientation proposed as the only proper one. It leaves not a shadow of doubt, if the orientation proposed is accepted, into what class any given human activity is to be placed. It segregates these activities into three groups, each of which is distinguished from the others by the most fundamental differences in purpose that can exist. The scheme proposed also stands the test of verification, so far as that test is afforded by the peculiar accuracy and clearness of the definitions derived.

All of which leads me to stress another point—its practical value in the teaching of economics. The young student starts with very hazy notions as to just what the subject is about. There is no one to tell him just what phenomena are economic, what social and what individualistic; no one to point out exactly how the productive factors are to be conceived or what their interrelations are. He is referred to various authors, each of whom stresses a different aspect of the subject. Slowly as he progresses, he grasps a more or less competent conception of the fundamentals, but conceptions so obtained are based more upon intuition than logic. They never become either precise or adequate, not even when students have developed into teachers of the subject. Now, if we can start the young student with a precise apprehension of the scope of the science, enabling him to spot an economic fact when he sees it, and with an exact comprehension of the four productive factors and just how they function, will he not be better fitted to take up the

problems of applied economics into which he is now so prematurely rushed? The definitions and theories herein presented would surely be readily comprehended, when set forth and illustrated by competent teachers. Some orientation of the science is essential for its proper presentation to the young student.

The entrepreneur, on whose functioning so much stress is laid in my treatise, is unfortunately a very unpopular person. The opprobrious term "profiteer" is assumed to be a synonym for him. Even if this were just, it would be well to understand him, as there is no doubt about his control of economic activity. It has been shown herein that the entrepreneur "as such" is not the real devil and that it is the controller of opportunities, the restricter of competition, who is the real sinner. It must be confessed indeed that, as an individual the entrepreneur is often found in bad company, when to the exercise of his own function he adds the control, and often the illegitimate creation, of opportunities. To this extent there is some justification of popular suspicion. Competent economists will not, of course, allow his keeping bad company to bias them in discussing theory. On the contrary, they should recognize the benefit secured in showing up his partner as the real culprit—one of the best of reasons for accepting the theories here advanced.

FREDERICK BARNARD HAWLEY.

New York City.

SOME FACTORS AFFECTING THE BARGAINING POWER OF THE WORKERS IN THE GLASS BOTTLE INDUSTRY

At one time bottle makers were among the aristocrats of trade unionism. They were highly skilled; they had a strong closed craft union; and they were paid exceptionally high wages. Virtually all the union members were employed in the trade; and a substantial part of all blowers were in the union. An aid to the union's development was the long period of apprenticeship necessary to learn the art of bottle making.

But today the worker is in a less enviable position. Highly skilled workers have given way to semi-skilled men. The closed craft union has become the open industrial union. Wages have declined. A considerable part of the bottle makers are not organized; and an appreciable number of union men are not employed in the trade. Membership is now slightly above what it was in 1900, although in 1919 it was more than twice its present size. Apprenticeship has ceased to be a factor of importance in the industry.

These changes have taken place during a time when the industry was experiencing its Mechanical Revolution. While the transition from hand to machine methods of production is still in process, the more significant developments are in improving mechanical technique.

Rates for Blowers

Rates had been stationary from 1890 to 1909.¹ In this latter year the first rather general reduction, amounting to about 20 per cent, occurred; and it was followed by a similar one in 1912, making a total reduction of 36 per cent from the 1890-1909 level. These reductions were extended to additional classes of ware in 1913. In 1916, 1917, 1918 and 1920 (a period of rapidly rising prices) there were increases of 10 per cent, 15 per cent, 10 per cent and 10 per cent, respectively. In 1921 rates were reduced about 16 $\frac{2}{3}$ per cent thus bringing the general level of rates to about that prevailing after the 1909 reduction.

Fruit jar rates were reduced between 35 and 45 per cent in 1897-98. This was brought about largely because of the competition of ware made by semi-automatic machines, and was also stimulated by non-union competition.

Little information concerning wages can be had from the elaborate² rate structure because of three variable factors: regularity or

¹*Wage Scales and Working Rules*, Glass Bottle Blowers' Assoc., yearly. (Hereinafter referred to as *Blowers' Assoc.*)

²There are over 1500 separate rates for hand blown ware and over 1000 for bottles made by semi-automatic machines.

irregularity of work;³ changes in working conditions; and rate changes which do not apply equally to all types of ware.⁴

Money Wages of Blowers

Wage data are exceedingly fragmentary. A few early studies were made by the New Jersey Bureau of Labor Statistics.⁵ In one of these the following average daily wages are found for the period 1879-1905:

Up to 1879	\$3.83
1879-1890	4.83
1890-1905	5.00

Prior to 1879 some blowers (those making large bottles such as "carboys") made from \$16 to \$20 a day; but in 1879 their possible earnings were reduced to \$12-14 a day.

D. A. Hayes, late president of the Blowers' Association, testified in 1899 that union blowers averaged about \$25 a week, although twenty years earlier blowers made "as high as \$5 to \$12 per day." In 1914 Mr. Hayes stated⁶ that the average daily wage for blowers was about \$4-4.50 per day. Prior to the reduction in rates "the glass blower made from \$6 to \$18 and \$20 per day. Of course these were the exceptions—the \$18 and \$20. That was for carboys and demijohns. But \$8 and \$10 were about the average wages for a glass blower."

This average wage of \$8 to \$10 is considerably higher than the average of \$5 for the period 1890-1905 even though based on substantially the same rates. The introduction of a new type of furnace and more efficient methods of production "made it possible for the workman to double his production."⁷

In the reports of the president of the Blowers' Association to the annual conventions of that body are found the following estimates of

¹"The Glass Industry," Dept. of Commerce, misc. series no. 60, 1917, p. 251. According to this study the average number of days operated by 22 establishments making hand blown ware was 263, while 11 establishments making bottles by machines operated 291 days.

²Report of the Industrial Commission, 1900, Washington, D. C., Vol. VII, pp. 107-108.

³"Reductions in rates have been made in the types of ware suffering from competition of automatic machinery. A "general" change is accompanied by special adjustments for particular types of bottles.

⁴Current Standard Wage Rates, 1897.

⁵A Brief Study of Trades-Unionism, 1898.

⁶Wages and Production in the Glass Industry from 1875 to 1905, 1905.

⁷Wages and Production in the Glass Industry, pp. 199-210.

⁸Report of Industrial Commission, op. cit., p. 107.

⁹Industrial Relations, final report and testimony submitted to Congress by the Commission on Industrial Relations, Washington, D. C., 1916, vol. III, p. 3016.

¹⁰Report of Industrial Commission, op. cit., p. 107. Italics are the author's.

average daily wages for blowers and operators of semi-automatic machinery:¹⁰

	Blowers	Semi-automatic operators
1905	.....	\$5.-6.00
1915	.....	5.56
1916	.....	6.00
1921	\$7.75	8.40
1922	6.22	7.00
1923	6.54	7.21
1924	7.00	7.25

Average weekly earnings for 1914 and 1917 are given as follows in a report by the United States Tariff Commission:¹¹

	1914	1917	Percentage of increase
Hand workers.....	28.36	34.56	22
Semi-automatic operators.....	18.50	26.88	45

In 1917 a study of the Department of Commerce¹² placed the average earnings of blowers at \$27.87 and at \$29.09 for machine operators.

Yearly earnings were estimated by the late President Hayes as between \$1000 and \$1300 in 1914.¹³

From the very meager data available it appears that the average daily wage in 1924 may be slightly higher than the average given for the period 1890-1905, although lower than the figure set by Mr. Hayes as an average prior to the rate reduction of 1909.

Real Wages for Blowers

On the basis of an industrial wage index,¹⁴ blowers receiving \$5 per day in 1890 would have received somewhere around \$17 per day in 1920 had they maintained their 1890-1905 relation to other wages.

If one takes the retail price of food¹⁵ as an index to cost of living, it is found that money wages have failed to keep pace with cost of food. Food prices began an upward trend about 1897. Until 1916 the trend was gradual; but thereafter it increased rapidly until 1920-

¹⁰*Proceedings*, Blowers Association, 1905-1924, *passim*.

¹¹Tariff Commission Surveys on specific paragraphs of the Tariff act of 1913, United States Tariff Commission, 1924, p. 34.

¹²*The Glass Industry*, *op. cit.*, p. 262. This average covers 29 establishments employing 1370 blowers.

¹³*Industrial Relations*, *op. cit.*, p. 3019.

¹⁴*Monthly Labor Review*, Department of Labor, Feb. 1922, p. 79.

¹⁵*Ibid.*, Feb. 1925, table 7, p. 23. The index runs from 1890 to 1924.

21 when there was a sharp decline. While money wages between 1890 and 1905 appear to have been rather stable, their purchasing power was declining, the reduction in wage rates (1909 and 1912) occurred as food prices continued to rise. Wage increases which began in 1916 did not keep pace with increases in cost of food. Real wages were somewhat improved following the decline of 1920-21 in the cost of food when compared with the immediately preceding years, but considerably less favorable than prior to the rate reductions of 1909 and 1912.

When cost of living figures are used for the period 1913-1924,^a substantially the same situation prevails until 1920. Between 1920 and 1924 cost of living fell less rapidly than did food costs. Consequently during these four years the real wage was less favorable than indicated by cost of food figures.

Daily Rates for Automatic Machine Workers^b

Operators of automatic machines are paid on an hourly basis, and the following day rates are for eight hours:

	Flow device	Owens automatic machines (American Bottle Company)		
		6 arm	10 arm	15 arm
Prior to agreement		\$2.28 ¹⁸	\$2.40 ¹⁸	\$2.77 ¹⁸
1917		2.40	2.77	3.66
1918	\$4.00	3.00	3.20	3.66
1919	4.80			
1920	5.28			
1922	4.80	4.10	4.16	4.32
1924	4.80	4.50	4.64	4.80

Other Working Conditions

Reduced bargaining power seems to be reflected not only in wage rates and real wages, but also in the periods of work. In 1880 the blowers obtained a "summer stop" or vacation of eight weeks. During this period plants shut down completely. Today the blowers are given a summer vacation of only four weeks, and it must be taken at such time as not to interfere unduly with the operation of the plant. The late President Hayes attributed this change to the influence of machinery, as the following testimony indicates:¹⁹

¹⁸Monthly Labor Review, Nov., 1924, p. 114.

¹⁹Wage Scales and Working Rules, Blowers' Association, 1917-1924.

²⁰On 12 hour basis. See Proceedings, Blowers' Association, 1918, p. 45.

²¹Industrial Relations, op. cit., p. 3008.

For thirty years we had two months, July and August. The heat made it impossible to work. But since the machine has come we had to take only one month off, that is August, the hottest month.

Operators of automatic and semi-automatic machines receive two weeks' vacation under the same conditions. The vacation is optional with the former, but is mandatory with the latter and with the blowers.

Efforts have been made to obtain a $5\frac{1}{2}$ day working week throughout the year. In 1915 the $5\frac{1}{2}$ day week was granted to blowers and operators of semi-automatic machines for the summer months only. For the balance of the year these groups work six days per week, while the operators of automatic machines work six days throughout the entire year.

Attempts to obtain a shorter working day have not met with much success. In 1899 a day's work for blowers was $8\frac{1}{2}$ hours actual working time, while today it is eight hours.²⁰ With the pressure of unemployed members, the union sought a 7 hour day with 3 shifts in 1910.²¹ Employers considered a general limitation of this kind inadvisable and refused to accept it officially. However, some plants were operating in 1914 on a 4 shift basis of 6 hours each,²² while some plants have operated on more than the standard eight hour day.²³

The purpose of this paper is to examine the nature and extent of the mechanical and other changes which seem to have affected the union's bargaining power.

From the days of the ancient Egyptians until the closing years of the nineteenth century there had been but little change in the method of making glass bottles. The mixture or "batch" was put in earthen "pots," which were then placed in furnaces and the batch melted under intense heat. Then the blower gathered a small portion of the molten metal on the end of his "blow-pipe," and, by rolling the mass and by blowing air into it, formed the bottle.

Mechanical devices began to appear about 1892, but not until about 1898 did they directly affect the workers. In 1892 there developed the "continous tank" method of melting glass. This permitted several batches of glass to be in different degrees of preparation simultaneously. Furthermore, this method eliminated the uncertainty arising from breakage of the fragile pots and the consequent loss of their contents. The use of the tank did much to open the way for mechanical changes in the formation or blowing of the bottle.

²⁰*Wage Scale and Working Rules*, Blowers' Association, 1899.

²¹Final Wage Conference, Blowers' Association, 1910, p. 22.

²²*Industrial Relations*, *op. cit.*, 1914, p. 3012.

²³"The Glass Industry," *op. cit.*, 1917, p. 262.

Nature of Mechanical Devices

Mechanical devices for bottle blowing fall into two general groups: (1) semi-automatic machines, and (2) automatic machines.

During the late 80's and early 90's, experiments were made in this country, with machines which would blow glass by compressed air. Difficulty was encountered in finishing the neck of the bottle; and not until 1898 could the entire bottle be made satisfactorily by machine. Even then only large-neck ware, such as fruit jars and milk bottles, could be made. By 1908 small-neck ware, such as prescription bottles, could also be made by machine.

These machines were known as "semi-automatic."²⁴ A skilled operator was required to gather the molten metal on the end of a "gathering-iron" and drop the proper amount into the moulds of the machine. Formation of the bottle was automatic. Thus, these machines modified but did not eliminate the use of skill in bottle making.

Two lines of development were open for further modification of skill in this industry. One was for a machine which would perform all the operations necessary for bottle making. The other was for a machine which would automatically gather and drop the glass into the semi-automatic machine. Developments in both lines were forthcoming.

In 1904 a machine was introduced which performed automatically all the processes of bottle making. It required only a semi-skilled operator and was known as the "Owens automatic machine." Not until about 1908 or 1909 did it become commercially important; but since then it has been the principal factor in revolutionizing the industry.

At the time the Owens machines were coming on the market, experiments were being made with a device which would automatically feed the glass to the semi-automatic machine. This invention was known as the "automatic flow and feed device," or more commonly, the "flow device." It does not appear to have attained any importance prior to 1914 or 1915, and not until 1918 were any considerable number in use.

Summarizing, we may observe that about 1898 the first bottle making machines were used. These machines could make only large-neck ware. By 1908 they were so improved as to make small-neck ware also. In 1904 the Owens automatic machine was introduced but did not become important until about 1908 or 1909. The flow device was in use by 1914 or 1915 and attained importance about 1918.

²⁴For brevity the semi-automatic machines for small-neck ware will be referred to as "improved" semi-automatic machines, in contrast to the earlier machines which could make only the large-neck ware.

Semi-automatic machines, when classified according to type of ware made on them, are also known as wide, and narrow-mouthed machines; when classified according to number of operators they are known as: one, two, and three-man machines.

Some idea of the extent to which machinery, in its several major forms, has been and is being used, may be had from the following table compiled from the annual *Proceedings* of the Glass Bottle Blowers' Association except where otherwise indicated.

NUMBER OF BOTTLE MAKING MACHINES REPORTED 1898-1924^a

Year	Semi-automatic			Owens	Flow device	
	Wide mouth	Narrow mouth	Total		No. of establishments	No. of machines
1904	107	...	107	...		
1905	117	...	117	...		
1906	168	...	168	8		
1907	191	...	191	18		
1908	223	...	223	36		
1909	205	19	224	49		
1910	216	...	...	92		
1911	173	56	229	109		
1912	170	96	226	134		
1913	201	96	297	151		
1914	210	...	...	172		
1915	193	265	458	182		
1916	167	292	459	193	12	
1917	...	...	428	202	15	
1918	...	...	428	212	..	
1919	a	a	a	210	23	
1920	107	208c	315	202	..	
1921	52	236	288	202	36	104
1922	43b	127	170	..	..	90
1923	42	88	130	..	..	188
1924	34	38	72	181d	41	260e

a Only 59 per cent of the branches reported.

b Exact number not clear from the report.

c Estimated by the president.

d This figure given by the Owens Bottle Company.

e 188 reported in operation.

Semi-automatic machines reached their numerical peak about 1916, when 459 were reported. They declined to 72 in 1924. The Owens machines increased from 1 in 1904 to 212 in 1919. From the meager data available, it appears that the flow devices were operated in about 12 plants in 1916 and in 41 plants in 1924. In this latter year there were reported 260 devices in the industry, of which 188 were in operation.

Comparison of the rate of production by the different methods is difficult, because of the many variable factors which may be present but which are usually not mentioned when a production figure is given. A few comparisons may be observed:

^aIt is not always clear whether the figures represent machines installed or machines in operation. The purpose of the table is merely to indicate the trend of mechanical changes. No data available in *Proceedings* prior to 1904.

(a) By hand methods, three blowers (working as a "shop" or group) formerly produced about 15 gross of quart milk jars in eight hours; with the semi-automatic one-man machine between 22 and 23 gross were produced in the same time.² This is an increase per man of about 400 per cent.

(b) Whereas three men could produce, by hand, between 40 and 50 gross of cologne bottles ($\frac{1}{8}$ to $\frac{1}{4}$ ounce) in eight hours, the flow device with one operator could produce about 80 gross,³ an approximate increase per worker of about 500 per cent.

(c) In 1904 Owens machines made 90 gross of pint bottles in twenty-four hours; in 1917 the fifteen-arm machine made 354 gross in the same period.⁴

A communication from the Owens Bottle Company gives the following figures for the productive capacity of their machines in the order of their introduction. The production period is apparently twenty-four hours.⁵

CAPACITY OF MACHINES CONTROLLED BY THE OWENS BOTTLE COMPANY, TOLEDO, O.

Owens	6 arm AE	225 gross
"	10 " AR	400 "
"	10 " AR $3\frac{1}{2}$ center distance	500 "
"	10 " AN	550 "
"	15 " AQ	550 "
"	15 " AV	750 "
"	15 " AQ carboys	200 "
"	10 " CA multiple mould	2000 "
"	10 " CB multiple mould	1500 "
Graham	8 " AW	150 "
"	10 " AY	300 "
"	15 " AZ	450 "

²Estimated by Mr. Harry Jenkins, Secretary of Glass Bottle Blowers' Association, and a former blower.

³Tenth Annual Report of the Owens Bottle Co., Toledo, Ohio.

⁴Accurate interpretation of capacity depends upon knowing the size and type of ware involved. Upon inquiry the following explanation is given by the Owens Company concerning the specific sizes and types of ware to which these figures apply:

The production figures.....refer to maximum production on these machines. The machines are listed in the order they were brought out by us. The AQ machine is a gallon capacity or higher, which accounts for its production of 200 gross per day. The smaller size bottles may be manufactured in greater production and at a faster speed than the larger size bottles. This is easily explained by the reason that the smaller size bottles cool faster and the machines must operate faster in manufacturing them. On the other hand, the larger size bottles are of greater thickness and cool slower, and require a slower rotation of the machine in their manufacture. It may be readily appreciated therefore, that the production of a machine depends entirely upon the size and shape of the bottle to be manufactured. Difficult shapes require slower manufacture.

The figures of 2000 gross for the CA machine and 1500 for the CB machines are

Originally each arm of the Owens machine had a single mould. If a machine had six arms, there were six bottles produced with every complete rotation of the arms. The multiple mould machines have as many as six moulds to each arm, and some machines have fifteen arms. Another development has been the improvement of the machine to make all sizes and types of ware. At one time only large heavy ware could be produced satisfactorily; now all types of bottles can be made, ranging in capacity from ten drops to twelve gallons. However, these machines cannot be used for small orders nor for very fine ware. This increased efficiency is probably a factor in the numerical decline since 1919.

A very considerable part of the total bottle production of the United States is furnished by the Owens Bottle Company.¹⁰ The writer has been unable to obtain production data from the Owens Company for years comparable with the production data for the entire industry as given by the census. The following estimates are intended, therefore, to be merely rough approximations of the relative importance of production by the Owens Bottle Company as calculated from available data.

In 1917 this company stated, in its *Tenth Annual Report*, that 1,558,996,416 bottles had been produced on its machines. The census figures for the total bottle production in 1919 were 3,204,432,000. In so far as these years are comparable¹¹ it would seem that about 50 per cent of the total production in this period was furnished by the Owens Bottle Company. In January, 1924, they state¹² that the yearly value of bottles produced on their machines was between fifty and sixty million dollars. Census figures give the value of glass bottles, jars, etc., in 1923 as \$107,230,389. If a comparison of these two years is permissible,¹³ it again appears that the Owens Bottle Company produced about 50 per cent of the entire yearly value produced in this second period.¹⁴

accurate figures on maximum production for a 24 hour day, and there are no other machines made that approach the quantity production of these two machines.

¹⁰Including subsidiaries and licensees.

¹¹Perhaps the major disturbing factor in this comparison is the effect of prohibition on the production of bottles for alcoholic beverages. For example, the American Bottle Company, a subsidiary of the Owens Bottle Company, specialized in this type of ware. And by 1919 brewers and distillers were not renewing their bottle supply.

¹²In a letter addressed to the writer.

¹³The years 1923 and 1925 are perhaps more nearly comparable than 1917 and 1919. However, the figures for the latter period are for value; and there is no available price index through which these values may be interpreted.

¹⁴Dr. G. E. Barnett, (in the August, 1925, issue of the *Quarterly Journal of Economics*, p. 548) comes to the conclusion, by a different approach, that in 1917 about 50 per cent of the bottle production was on Owen machines. He points out that the statistician of the Owens Bottle Company estimated that in 1917 about 45 per cent of the total bottle production was on Owens machines.

We may now summarize our discussion of the nature and extent of the mechanical changes in the industry. Since 1898 the methods of bottle production have been revolutionized. The first change was the transition from hand to semi-automatic methods of production. Today automatic methods of production predominate in the industry and semi-automatic branches of the industry and a very considerable part of the total production is furnished, directly or indirectly, by the Owens Bottle Company.²⁴

Attention may now be turned to some factors which have developed with the mechanical changes just considered, and which have affected the union's bargaining power. Consideration will be given to overdevelopment of the industry, decline in the skill of the worker, decline in union membership, extent of unionization and decline in apprenticeship.

Some Effects of the Machine Process

1. *Overdevelopment.* There are indications that the industry is capable of supplying more bottles than can be disposed of at the prevailing price, and, in some cases, at any price. But available information in this connection is meager.²⁵

PRODUCTION OF GLASS BOTTLES

Source: Census

	Quantity (thousands of gross)	Value (thousands of dollars)
1899	7,789	21,676
1904	11,942	33,631
1909	12,313	36,018
1914	19,288	51,958
1919	22,288	94,670
1921	(a)	85,743
1923	(a)	107,230

(a) Not reported.

Bottle production increased from 7,000,000 gross in 1899 to over 22,000,000 gross in 1919.²⁶ The value of bottle production increased

²⁴This company manufactures both bottles and bottle machines. These machines are leased to other manufacturers under exclusive privileges.

²⁵Our discussion of overdevelopment is intended to be merely suggestive. Many more data are necessary for a satisfactory analysis than are at present available. Prior to 1919 the census segregated, in terms of quantity, the bottle production into major groups. Since that year only total value is given. Price data in this industry are conspicuous by their absence. Even in the 1918 report on the glass industry by the Department of Commerce there is no information concerning prices of bottles.

²⁶Exports of bottle ware were valued at less than \$1,000,000 in 1914. By 1919 exports increased to slightly over \$5,000,000, and by 1921 they had declined to about \$4,500,000. At no time has the value of our imports been significant; in 1921 they were only \$293,238.

about thirteen million dollars between 1919 and 1923. It is uncertain to what extent this value increase represents an increase in volume production because no satisfactory data concerning prices are available. It is probable that some part of this increased value represents increased production. If such is the case, then production of bottles has increased throughout the period 1899-1923. However, the rate at which production increased between 1914 and 1919 was lower than between earlier periods except 1904-1909. But since 1914 there has been a significant increase in both the number and productive capacity of automatic machinery.²⁷

A statement on the letterheads of the Owens Bottle Company deserves attention because of the position this concern occupies in the industry. The statement reads:

"Annual Productive Capacity over Ten Hundred Million Bottles."

This is an advertising slogan and may require some modification before it is significant in this connection. Even if the advertised capacity of 70,000,000 gross is reduced by 50 per cent, there would still be a productive capacity of 35,000,000 gross with only the machines controlled by the Owens Company in this country. These machines appear to have a capacity considerably in excess of the largest recorded yearly production.²⁸

If this capacity of 35,000,000 gross is approximately correct, there arises out of it an important situation, especially when one recalls that Owens machines are capable of producing virtually all types and sizes of ware.²⁹ With such wide adaptability and such extensive capacity centralized in a group of patented machines, it would not be surprising if the existence of the smaller manufacturers depended, at least in part, on the sufferance of those concerns using these machines. Should such be the case, here is a factor which is likely to limit the bargaining power of the union in those plants over which it has control.³⁰

Even with an increasing total production there has been recently a marked decline in the production of particular classes of ware. Such a situation is found in those plants specializing in bottles for alcoholic beverages. The experience of the American Bottle Company, a subsidiary of the Owens Bottle Company, is a case in point. About 93

²⁷See p. 7.

²⁸Our highest recorded yearly production was slightly over 22,000,000 gross in 1922. Dr. Barnett estimates (p. 544 of the article previously referred to) the 1924 production to have been 18,000,000 gross.

²⁹Concerns using machines may also have a hand-blown plant to care for small and specialized orders. This is true, for example, of the Illinois Glass Company of Alton, Illinois. Their hand-blown plant was recently destroyed by fire, and they are rebuilding it to care for orders which cannot be made profitably by machines.

³⁰Union control does not extend over plants using Owens machines, except the American Bottle Company.

per cent of the concern's production at Newark, Ohio, was beer bottles." During 1917 this plant produced 1,315,355 gross of bottles; during 1921 it produced 239,113 gross. Prior to prohibition it employed 1,000 men steadily; since 1920 the employment has gone as low as 250 men, and these were not steadily employed. According to the census the production of "beer, soda, and mineral" bottles and of "liquors and flasks" decreased about 2,000,000 gross between 1914 and 1919. The present extent of the decline is not given.

Under such conditions there is a considerable amount of equipment which, with some modifications, may sooner or later be used for the production of other types of ware. Union officials state that such changes have been and are being made. In the absence of corresponding changes in demand, or in prices, such changes in equipment are likely to increase still further the overdevelopment of the industry. This would not strengthen the union's bargaining power.

2. *Decline in skill.* The skill of the blower lay in judging the proper amount of glass to gather on the end of his blow-pipe; in blowing the proper amount of air into the bottle at the right time and in the right way; and in rolling the glass on an iron slab so as to distribute the molten metal evenly over the body of the bottle. The semi-automatic machine required skill only in dropping the glass into the mould. Both the Owens machine and the flow device required only semi-skilled workers to operate them.

The extent and rate of reduction in skill is uncertain.⁴ Union membership is not classified on the basis of either skill or occupation. When manufacturers were dependent upon skilled labor, the supply of it could be increased, even in the absence of regulations, only after a training period of several years. With the advent of automatic machinery the necessary training period was much reduced; and the labor supply could be easily and rapidly increased when the need arose.

3. *Union membership.*⁵ Membership in the union fell with the decline of skill and with the overdevelopment of the industry.

An examination of the membership curve on the accompanying chart

⁴T. W. Rowe, General Factories Manager, American Bottle Company. Published address on prohibition delivered at Newark, Ohio, March 8, 1925.

⁵Dr. Barnett states (p. 549, *op. cit.*) that in 1905 there were 10,000 skilled workmen and apprentices, of whom 9,000 were hand blowers and 1,000 were operators of semi-automatic machines. In 1924 there were approximately 1,000 hand blowers, 300 operators of semi-automatic machines, and 1,500 attendants of automatic machines. Dr. Barnett does not indicate how these figures were secured; and the present writer has been unable to find the 1905 figure in the source given.

⁶The Glass Bottle Blowers' Association is the only union organization in the bottle industry. At an earlier time there was some overlapping between it and the American Flint Glass Workers, but the latter confines itself to table ware and lighting goods factories. See "The Glass Industry," *op. cit.*, 1917, pp. 303, 310, also "Report of Industrial Commission," *op. cit.*, p. 103.

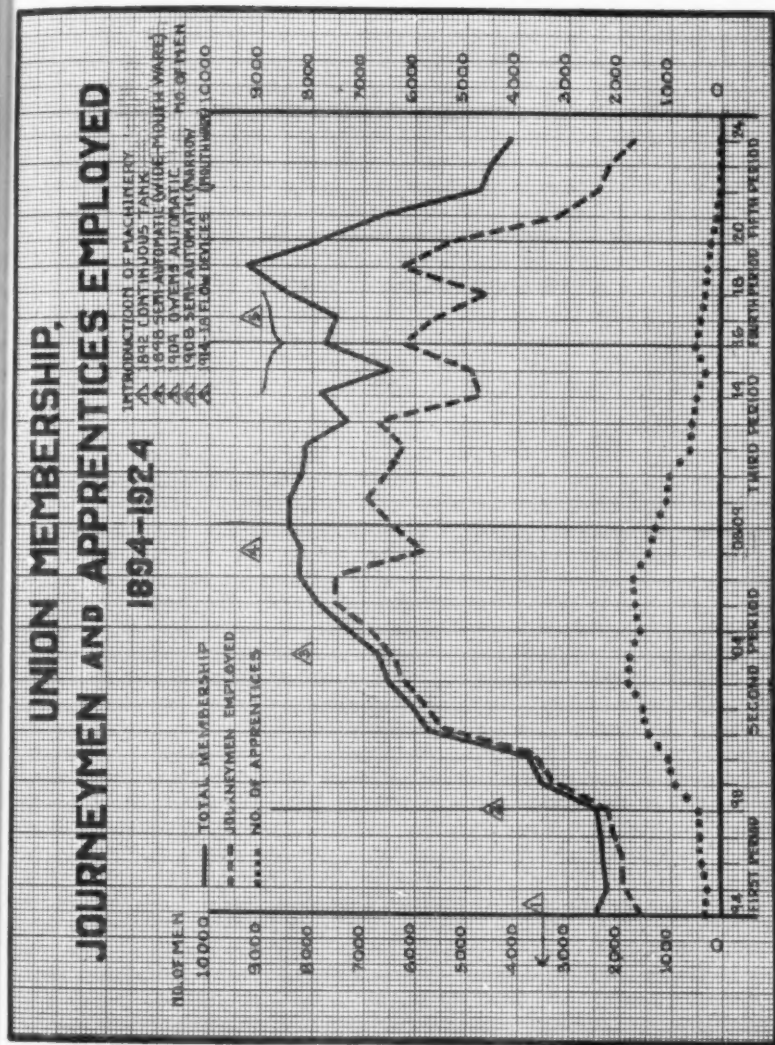


CHART NO. 1—SOURCE: QUARTERLY REPORTS OF THE GLASS BOTTLE
BLOWERS' ASSOCIATION

discloses five rather distinct periods: prior to 1898; 1898-1909; 1909-1915; 1915-1919, and 1919 on.

Absence of data prevents comment concerning membership prior to and immediately following the change from the "pot" to the "continuous tank" method of melting glass. Beginning then with the second period (1898-1909) we find that membership began to increase the same year (1898) the semi-automatic machine was introduced and continued through the advent of the Owens machine (1904) and of the improved semi-automatic machine (1908).

Several factors are involved in the rapid increase of membership in this period. (1) About 1897 the union made a drive on the non-unionized areas of southern Jersey. This resulted in an increase of about 1,400 members by the year 1900. (2) About 1901 there was an amalgamation of some of the Flint Glass Blowers (mostly of the prescription branch) with the Glass Bottle Blowers' Association. This resulted in an increase of some 2,100 members to the latter union. These two sources furnished an increase of about 3,500 members in this period. Then, too, production of bottles increased about 50 per cent between 1899 and 1909, and more workers were required. Not until the close of this period did the Owens machines become commercially important; and not until about 1912 did the improved semi-automatic machines become numerous.

During the third period (1909-1915) membership declined, reaching its lowest point in 1915, even though the volume of production was on the increase. The older type of semi-automatic machines decreased in number while the improved type increased rapidly. Owens machines also increased in both number and capacity.

This was a trying period for the union. The economic gains and the high degree of skill enjoyed by the members had been substantial bonds of common interest. But these bonds now began to weaken. Employment of union men began to decline about 1906 or 1907. Skilled workers were displaced by the machines. Wage rates for blowers were reduced in 1909 and again in 1912, despite rising living costs. Under such circumstances it is not surprising to find many workers relinquishing their union affiliation and going into other occupations."

In the fourth period (1915-1919) membership took a sharp upward trend and reached the peak in 1919. Owens machines continued to increase in number and capacity, while both types of semi-automatic machines declined in number. The flow device came on the market, and this may partly explain the decline in semi-automatic machines because one device could operate several machines. But the device did not become important until the following period.

"Some workers have retained union membership for other than occupational advantages.

An im-
change i
advocate
already
per cent
facturers
1914 wa
Then c
increased
diction
through
increased
product
increased
the reco

Our
The tre
we now
them.
devices
machin

Seve
member

(a)
of 192
the co
Associ

(b)
growth
new m

(c)
The V
izing
of the
those
produ

"Pro
"Pro
"See
the oth
"Pro
"Be
prohib
1917,
36 sta

An important factor of this rapid increase in membership was the change in union jurisdiction. In 1904 the president of the union advocated the change from a craft to an industrial union.⁴⁰ He had already seen, in 1898 and 1899, reductions in wage rates of from 35 per cent to 45 per cent for fruit jar blowers, in order that hand manufacturers might compete with machine manufacturers. But not until 1914 was the change from craft to industrial union actually made. Then came a membership drive; and by 1919 membership had increased by about 3000 men.⁴¹ In addition to the change in jurisdiction and the membership drive, two other factors were in operation throughout the industrial world. One of these was the general increased business activity due to war needs. However, the increased production of bottles between 1914 and 1919 was not as great as the increase between 1909 and 1914. The other general influence was the recognition of organized labor by the federal government.

Our last period (1919-1924) finds membership on a rapid decline. The trend of production is uncertain because instead of quantity figures we now have only value figures and no price index by which to interpret them. Semi-automatic machines have declined rapidly while the flow devices have increased in number. It would appear that the Owens machines had a numerical decline,⁴² although increasing in efficiency.

Several factors may be mentioned in connection with the decline in membership during this fifth period:

(a) Following the close of the war and abetted by the depression of 1921-22, there was a decline in the membership of unions throughout the country. It is quite probable that the Glass Bottle Blowers' Association felt the influence of this general movement.

(b) Dissension developed within the union. It appears that the growth of membership was too rapid for adequate assimilation of the new members.⁴³

(c) National prohibition became effective in January, 1920.⁴⁴ The Volstead act greatly curtailed production of those plants specializing in bottles for alcoholic beverages. Even prior to the enforcement of the Eighteenth amendment there appears to have been a decline in those classes of ware which include beer and whiskey bottles. The production of "beer, soda and mineral" bottles and of "liquors and

⁴⁰*Proceedings, Blowers' Association, 1904, pp. 37-39.*

⁴¹*Proceedings, Blowers' Association, 1920, p. 45.*

⁴²See p. 12. The 1924 figure was furnished by the Owens Bottle Company while the other figures were taken from the *Proceedings* of the Blowers' Association.

⁴³*Proceedings, Blowers' Association, 1920, p. 45; 1923, pp. 41-45.*

⁴⁴Between 1915 and 1919 about 22 states provided for constitutional or statutory prohibition. The Eighteenth amendment was adopted by the Senate on August 1, 1917, and by the House on December 17, 1917. On January 16, 1919, the necessary 36 states had ratified the amendment, and it became effective January 16, 1920.

VOLUME PRODUCTION OF DIFFERENT CLASSES OF BOTTLE WARE

(thousands of gross)

Source: Census

	1899	1904	1909	1914	1919
Prescriptions, vials, and druggist wares.....	2,423	3,202	3,624	4,893	6,684
Beer, soda and mineral.....	1,351	2,351	2,345	4,573	4,178
Liquors and flasks.....	985	2,157	1,887	2,689	993
Milk jars.....	146	253	440	1,188	877
Fruit jars.....	789	1,061	1,124	1,198	1,860
Battery jars and other electrical goods.....	(a)	19	9	79	13
Patent and proprietary.....	1,296	1,657	1,637	1,384	3,364
Packers and preservers.....	784	1,237	1,237	3,271	4,297
Demijohns and carboys.....	7	5	10	15	22

(a) Not reported separately.

flasks" was 2,000,000 gross less in 1919 than in 1914. This decline may reflect increase in state prohibition, war time restrictions, and curtailed orders from brewers and distillers in anticipation of federal prohibition.

Union officials are very positive that prohibition has not only had an adverse effect upon certain plants but also upon the entire industry. While the production of bottles for alcoholic beverages decreased about 2,000,000 gross between 1914 and 1919, the production of "patent and proprietary" medicine bottles increased during this period by the same quantity. Union officials believe these movements to have quite independent causes. They similarly contend that if the increase in value of bottle production between 1919 and 1923 represents an increase in volume production, such increase was stimulated by factors independent of prohibition. Such independent factors include: (a) increase in demand due to increase in population; (b) decline in the use of old bottles;⁵⁰ and (c) activities of the Glass Container Association.⁵¹

The position taken by the officials concerning the adverse effect of prohibition on the industry may be correct. But there are no official production figures available to support any conclusion concerning the effect (beneficial or injurious) of prohibition on the entire industry. In short, during this fifth period there have been events, other than the increased use of machinery, which have been involved in the decline in union membership.

We may conclude that as machinery established itself in the industry,

⁵⁰Many concerns using large quantities of bottles now use only new bottles, rather than buy back old ones and have them sterilized.

⁵¹This association was formed in 1919 for the stated purpose of advancing the use of bottles and allied lines, for container purposes.

union membership has tended to decline, even though production was on the increase. In the early period (1898-1899) membership increased while the use of machinery was also increasing. This parallel movement of both factors was due largely to amalgamations and unionization of workers and to increased demand for bottles. But by 1908 or 1909, when machinery, particularly automatic machinery, was becoming more important in the industry, there began a rather steady decline in union membership. This decline was broken between 1915 and 1919 because, for the most part, of a change in jurisdiction of the union. Since 1919 several factors have been involved in the decline of union membership.

The relatively rapid decrease in membership is likely to reflect a decline in union bargaining power. It will be noticed on Chart I that for some time there has been a considerable gap between membership and the number of union journeymen employed. With such a condition the union is likely to be under internal pressure to take every possible step towards reducing unemployment with due regard for the group as a whole. This position is much less strategic than one where virtually the entire membership is employed in the trade.

Furthermore, the mere reduction in the number of men engaged in the industry is a factor likely to reduce the union's power, especially when there has been a considerable decline in skill. With the reduction in number and in skill, employers find it easier to replace the workers than when more workers were required and when much skill was necessary.

4. *Extent of unionization.* One's conclusion as to extent of unionization in this matter depends on the basis of computation. In 1924 President Maloney of the Glass Bottle Blowers' Association remarked:²

This field (non-unionism), so far as it applies to the skilled department of blown and semi-automatic machines has been obliterated.....our future effort in the field of non-unionism must be to concentrate upon unionizing those units which are now producing by automatic methods and have not yet entered into agreement with us. This field is wide and is a challenge to us as an organization.

In February, 1925, Secretary Jenkins of the same association estimated that there were about four plants, using flow devices, which were not organized. Most of the plants using this device shifted gradually from other methods of production, and some continue to use both blowers and feed devices. Such gradual transition gave the union an opportunity to organize this branch of the industry. And there may have been also a willingness on the part of the manufacturers to deal with labor under known, stable and conciliatory leadership.

²*Proceedings, Blowers' Association, 1924, p. 41.*

What proportion of the total production of bottles is furnished by flow devices is unknown. From a previous calculation, a considerable part of the total production is furnished by Owens machines, and a still larger part is capable of being supplied by their leased machines. Those plants using Owens machines are unorganized, except for the American Bottle Company plants at Newark, Ohio, and at Streator, Illinois. The significance of the agreement with the American Bottle Company is yet to be determined; for it will be recalled that this concern is a subsidiary of the Owens Bottle Company. At the present time it would seem that a very important part of the industry, from the viewpoint of production and of capacity, is unorganized.

The absence of unionization in some of the plants using Owens equipment is likely to limit bargaining power of the union with those plants under its jurisdiction. In the absence of other significant factors, even reasonable union demands upon plants not using Owens equipment may react to the economic advantage of plants using such equipment. Thus, the union would drive business from plants where it had control to those plants where it had not control.

5. *Apprenticeship.* This has played an important part in the glass bottle industry. Both the term of apprenticeship and the number of apprentices have been and are regulated by agreement for the hand and the semi-automatic branches of the industry.

In 1901 the term of apprenticeship was fifty working months, or about five working years. By 1916 it was reduced to forty working months, or four working years. This period applies now to blowers and to operators of semi-automatic machines. There is no apprenticeship period for the operators of automatic machines.⁶⁰ In some years no apprentices have been admitted to the industry.⁶¹ When they were admitted the number has usually been between one apprentice to ten journeymen and one apprentice to fifteen journeymen. The former ratio now prevails.

There were nearly half as many apprentices as journeymen in 1883.⁶² In that year there were 970 journeymen and 445 apprentices. In 1886 there were reported 1168 journeymen and 421 apprentices. The number of apprentices reached its peak in 1904 when there were about 1800 with over 6000 journeymen. Now there are fewer than 50 apprentices with about 1800 journeymen employed.

⁶⁰Union officials point out that the absence of apprenticeship regulation in the automatic branch of the industry is due to the little training required to operate these machines. Hence apprenticeship regulations are unnecessary.

⁶¹"Apprenticeship in the Glass Blowers' Trade," *Thirteenth Annual Report of the New Jersey Bureau of Statistics*, Trenton, 1890, p. 45. This account deals with a period prior to the formation of the Glass Bottle Blowers' Association.

⁶²"Apprenticeship in the Glass Blowers' Trade," *Thirteenth Annual Report of the New Jersey Bureau of Statistics*, Trenton, 1890, p. 425.

Apprenticeship regulation no longer makes an important contribution to union bargaining power. There is at least nominal competition between the automatic and the other branches of the industry. The former is the major source of production; and it has not apprenticeship regulation. This means that regulation in the hand and semi-automatic branches has little significance to the industry at large, and does not, to any appreciable extent, enhance the bargaining power of the groups where it does exist.⁶⁶

Our general conclusions follow. There have been radical changes in the mechanical process of the industry. Scarcely less radical have been the changes in some of the factors which influence the economic status of the workers. With the development of machinery, particularly automatic equipment, there are indications of a gap between capacity and production. The extent of the gap is uncertain, but is probably sufficient to be a factor affecting at least the present bargaining power of the union. Decline in skill and virtual elimination of apprenticeship caused the union to lose two very important means of maintaining bargaining power. The change from a craft to an industrial union does not seem to have had, as yet, very important consequences to the union.

While the union has jurisdiction over a considerable number of workers and plants, it has not jurisdiction over that smaller, but important, group of plants and workers where Owens machines are used.⁶⁷

The net result is that with the development of machinery there have been changes which have materially affected the bargaining power of the union. The glass bottle workers are no longer in an enviable position in the labor world. For the most part they are reduced in pay to the levels of semi-skilled workers. And they accept other working conditions which they probably would not accept if they were stronger.

H. LARUE FRAIN.

University of Pennsylvania.

⁶⁶There are probably local situations where regulation of apprentices prevents managerial abuses of certain kinds.

⁶⁷Except the American Bottle Company.

THE ROLE OF MATHEMATICS IN ECONOMIC AND BUSINESS STATISTICS

There has recently appeared a summary review of a half dozen texts on elementary statistics.¹ It is not the purpose of the present article to examine the specific comments concerning the several books. Attention will be given rather to the general remarks, which bear upon the use of mathematics in teaching statistics and constitute a large fraction of the entire review. These general remarks are of interest not only because they appear to give direction to the specific criticism of each book, but also because they contain a fundamental criticism of the current approach to elementary statistics. Partly because the said review was addressed to readers of this REVIEW, but primarily because this attack upon prevailing methods of teaching statistics is of especial interest to economists, an examination of the general remarks in the review is presented in these pages. The present article summarizes the thinking on this subject by a mathematician who, although keenly aware that the problem of teaching statistics to students of economics is yet far from solution, has actually had some experience in such teaching.

Students of Statistics

At certain sessions of the American Statistical Association's annual meeting in December, 1925, papers were presented on the general topic "Requirements for statisticians and their training." Professor J. W. Glover presented the results of a survey of actual teaching of statistics. Of the 241 reported courses in elementary statistics, 139, over half, were given in departments of economics and social science and in schools of business. Although data on the average number of students per course are not presented in the summary, there are strong reasons for believing that the average enrollment in economics and business departments heavily outnumbers that in the other departments offering statistics. Therefore, on the grounds both of the number of courses offered and the average enrollment per course, we find students of economics and business outnumbering others interested in statistics. An estimate that over 75 per cent of all students of elementary statistics are enrolled in departments of economics or business can scarcely be in error.

The need of this large class for some kind of statistical training is fairly obvious. Without admitting, with Professor Wilson, that sta-

¹E. B. Wilson, "Statistics and Its Methods," this REVIEW, March, 1927, p. 145.

²A summary of these papers appears in the *Journal of the American Statistical Association* for December, 1926, at page 419. In what follows, reference to this summary will be by the word "Requirements."

tistics is "as fundamental to business as physiology to medicine," we cannot overlook the striking developments of recent years. The teaching of economic and business statistics in graduate and undergraduate departments of our colleges and universities has developed at an astonishing rate in the last decade. In a very large degree this growth in instruction has been induced by the progressively more assiduous application of statistical method to the analysis of business problems. Dating from war-time years, modern industry has been using, with a growing intensity, the materials and methods of statistics. In a considerable measure this industrial use of statistics has grown out of the scientific development of business forecasting devices which are based largely upon statistical analyses. Nevertheless, a considerable part has been quite aside from forecasting—has been concerned rather with a detailed representation and interpretation of conditions at the time being, or in the immediate past, within the entire industrial organization or within large or small units thereof. As the principal recent work of statisticians has been in the fields of business and economics, it is not surprising that the teaching of statistics for business and economic students has received correspondingly dominant attention.

The uses which the student of economics makes of statistical knowledge are many and various. It is not necessary that he be involved in statistical investigations of his own in order to encounter statistical problems of minor or even considerable moment. In the literature of nearly every branch of modern economic science he is likely to read articles in which the argument rests largely and perhaps mainly upon statistical operations and statistical data. Whether he will or no, he must use statistics and statistical analyses in his current study of economics. The tendency of his contemporaries to make free use of statistics leaves him no choice. He must be able to read intelligently this new and rapidly developing language of his science. Indeed, so far as this particular aspect of the question is concerned, the knowledge a student must have is not greatly different from the knowledge one must have of a foreign language. It is a reading knowledge with all the connotations that the word *reading* properly has in reference to the ability to acquire ideas presented in a "foreign" tongue. Unfortunately this reading knowledge must be supplemented, in the case of statistics, with a somewhat wider critical knowledge because of the regrettable fact that a great many of the ideas presented in the language of statistics are unsound, and the statistical methods used in the presentation are themselves imperfect or positively erroneous. Students must be able not only to understand material presented in the statistical form, but to reach a wise judgment as to the adequacy of that material for the purpose in hand. In some cases,

indeed, they must be able to discover intentional fraud which has been cloaked by the natural plausibility of statistical charts, tables, and other paraphernalia.

Beyond this reading knowledge of statistics, the student of economics will find it advantageous to have a rather more detailed knowledge, sufficient in fact to enable him to make some constructive use of statistics and statistical analysis in his own economic reasoning. This does not imply that he must have all those qualifications which may properly be expected in the professional statistician; but it does imply that he shall know how to make efficient use of numerical data and the technical methods of statistical analysis, and that he shall know enough of the theory of statistics to safeguard him against faulty statistical reasoning. It is recognized of course that these needs of which we are now speaking are on the border line. The kind of knowledge which we have in mind here lies between the bare reading knowledge of one who seeks merely to understand that which is written and the comprehensive technical and theoretical knowledge of the thoroughly trained statistician. It cannot be doubted, however, that the number of individuals who are concerned with these border-line requirements is rather large. It embraces a very large fraction of the present generation of economists and prospective economists. Whether because of the facility with which statistical problems in economics can be secured and attacked, or because of the natural attractiveness of any method which deals with actual fact rather than abstract reasoning, modern economists are feeling a powerful impulse to engage in statistical research. It is perhaps not inaccurate to say that most of the graduate students of economics now going through or about to enter our universities, will devote a large measure of their energies and attention to statistical research. For all of these and many others with similar interests who will not have become doctors of philosophy in economics, this border-line knowledge of statistics in addition to the reading knowledge is all but imperatively necessary.

In the case of students of business, and especially those either enrolled in graduate schools of business or doing advanced work in undergraduate schools, the same reading knowledge suggested for students of economics is highly desirable, if not quite necessary. Some of these business students will go into organizations where they will need the more extensive statistical training mentioned above in connection with the border-line cases. How far the direct application of statistical methods to the handling of individual business enterprises will go in the next few years, it is not easy to forecast. Even among the great organizations, there still remains some difference of policy as respects the utilization of statistical technique in management. To suggest that all, or even the majority, of the students in our business schools at

present will have more use for statistics than is implied above in speaking of the reading knowledge, would be rash. Much will depend upon the appearance in the immediate future of new statistical methods peculiarly adapted to the handling of business problems. As matters now stand, the statistical technique available to assist in the conduct of industry, while immensely valuable, is not sufficient in scope or adequate in effectiveness to insure its general use.

There remains for consideration a small group of students both in economics and in business who intend to become statistical specialists. Neither the reading knowledge nor the border-line knowledge will suffice for these individuals. For them, nothing short of a thorough acquaintance, not only with statistical material and statistical technique, but with the ground work of statistical theory, will prove adequate. As in any other science, specialization in statistics involves a breadth and a depth of training altogether beyond that which suffices for a working knowledge on the part of a non-specialist.

Mathematics and Statistics

It may be admitted at once that the easiest way to teach statistics, whether directed toward imparting a mere reading knowledge or toward developing a more thorough understanding of the subject, is by a frank and full use of the terminology and processes of mathematics. Given a body of students who are sufficiently well trained in mathematics, statistical method and statistical theory can be presented rapidly and most effectively. If it were possible to insist that all of our students have at least the training which would be necessary for their handling such a course as theoretical mechanics, we should be in a position to teach statistics in a very economic and a very thorough fashion. Let it be said at this point, however, that some of the processes of theoretical statistics are so involved and of such special form that they are not within the reach even of the student who has a working knowledge of the calculus and of elementary differential equations. In fact, for certain of the essential operations of statistical theory, it is desirable that the student be familiar with the theory of functions and with the advanced portions of the theory of differential equations.

Professors Rietz and Crathorne have said, "Indeed, we do not get far in a course designed to carry out such aims before we need a much more extensive mathematical background. Thus, we soon need least squares in fitting a regression line or curve unless we include this topic in the course. We soon need determinants. We need finite differences in the background in the use of interpolation and approximate summation, unless the subject is included as part of the statistics course. We need definite integrals not treated in a first course in calculus."

And, "The convergence of the series requires consideration. In certain demonstrations in the literature these series are integrated term by term. The validity of this process is dependent on the uniform convergence of the series. We thus find ourselves dealing with questions of fundamental mathematical reasoning, because of the infinite processes involved. In the recent papers of Wicksell we have need for a knowledge of partial differential equations as part of the background." It is evident that in the opinion of these teachers of theoretical statistics, a rather wide range of advanced mathematical subjects is necessary if the student is really to understand some of the most essential topics to be covered. This point is emphasized because it is essential to remember that a good working knowledge even of the calculus is not sufficient to enable a student to become a thorough specialist in statistics. In other words, even if all our students were thoroughly familiar with the calculus, we could not give them a comprehensive training in statistical theory in its essential aspects.

Even a brief acquaintance with the actual literature of economic and business statistics and with the problems which arise from day to day in economic and business statistics suggests that there must be a large body of statistical method and statistical theory which can be learned by those who have not had the advantage of extensive mathematical training. The mere fact that it is easier to teach statistical method to students who have had considerable mathematical training (for example, through the calculus) is not adequate reason for failure to devise methods of instruction for those who have not had such advantages. Under the circumstances as they are, with the great bulk of students who take statistics coming from departments of economics and business and having little or no college training in mathematics, there is an impelling need to devise a teaching program which will enable these students to acquire a working knowledge of this modern tool of research. If it can be shown that no such teaching methods can be devised, then the obvious conclusion is that statistics must remain a closed book for all except the handful of exceptional and persistent individuals who reach the stage of graduate study in mathematics. No *a priori* reason exists for this conclusion, apart from the reluctance of mathematicians and other competent individuals to adapt the subject of statistical theory to the educational situation as it is. Moreover, the experience of the past several years in training economic and business statisticians strongly indicates that, with due diligence on the part of teachers, effective methods of presenting an adequate working knowledge of statistics to individuals having only limited mathematical training are being discovered and will be improved with further trial and observation.

²"Requirements," page 438.

In this connection, also, let it be said that modern teaching of engineering subjects dispenses in considerable measure with the fundamental mathematics once thought to be essential for the training of engineers. It may be objected that the average intellectual power of the present generation of engineers is not so great as that of an earlier generation; but the practical fact is that the world today requires the solution of a large number of engineering problems which, while not so intricate as to require the attention of a brain of extraordinary power and unusual training, are nevertheless important. Furthermore, our modern educational system still turns out a sufficient number of specialists in engineering theory, who are able to handle efficiently the more complicated problems and to furnish leadership in a great profession. It is not improbable that the situation in statistics will prove analogous to that in engineering—that we shall be able to give an adequate training to the great bulk of students so that they can handle most of the workaday statistical problems, and at the same time that we shall find means of providing a sufficient number of highly trained specialists to cope with all extraordinarily difficult problems and to point the way toward professional progress.

It is obvious that we are concerned, in teaching elementary statistics, with the training of this majority of students who require an adequate though moderate working knowledge of the subject. The question still remains as to the extent of mathematical knowledge which they must have before entering upon their study of statistics. There are many ways in which mathematical knowledge can benefit an individual, and of these two are of moment here: the service of mathematics as an intellectual tool; and the attitude of mind which is acquired through study of mathematics. In many subjects, and of these statistics is one, a definite knowledge of specific mathematical operations is helpful in that it affords a means of handling problems either more effectively or more promptly than they could otherwise be treated. Indeed, sometimes a specific mathematical process gives the only known means of solving a particular type of problem. The skilled mathematician has constantly ready at hand an assortment of intellectual implements with which he can attack particular questions and work out the desired results. The symbolism and the established relationships of mathematics provide him with a shorthand logical process by which he can strike through a difficult train of reasoning, and reach a clear conclusion. Waiving imperfections, which are well known to trained mathematicians, of these mathematical implements, it is obvious that they are immensely valuable in research. It should be remarked further that there is an essential unity in the relationship of mathematics which provides an automatic test of the consistency of a reasoning process which is treated mathematically.

Quite apart from this use of mathematics as a working tool in research, there is another advantage in mathematical training. We have referred to this as an attitude of mind; and it is noted by Donald R. Belcher when he says of mathematics and the physical sciences, "There is no realm of education which presents a greater opportunity for training in rigorous thinking and disciplined imagination."¹ A knowledge of mathematics tempers the confidence of an individual in computed results or, indeed, in any results derived by automatic or mechanical formulas. Such knowledge teaches the individual to withhold judgment until he has inquired fully into the nature of the postulates upon which the reasoning process, whether symbolical or otherwise, has been erected. It teaches him to distinguish between the particular and the general, to refrain from induction without adequate foundation, to test all operations by independent checks, and to approach a problem by more than one route. The practising statistician who is a trained mathematician uses formal mathematical processes rather infrequently; but his mind is constantly guided by a mathematical sense which provides a general safeguard against unwise analysis and faulty reasoning. It is this attitude of mind, subconsciously developed in the study of mathematical science, which is especially to be desired by every conscientious specialist in statistics. Although one can learn the methods of elementary statistics with a bare knowledge of algebra through logarithms, it is doubtful if such limited acquaintance with mathematics affords that natural mental balance which is so very helpful in the current use of statistical technique.

We may say then that it is possible to teach elementary statistics, as it is needed by the general run of students in economics and business—the reading knowledge referred to above—if the student has a mathematical training extending through algebra. It is rather essential that he shall have had among his algebraic topics: logarithms, the binomial theorem, complex fractions, radicals, and graphing of linear and quadratic expressions. In addition to this, it is desirable that the algebraic topics include determinants, permutations and combinations, graphing of simple transcendental expressions, solution of equations of higher degree than second by algebraic and graphic methods, and partial fractions. Some of these topics which have been mentioned as desirable are without doubt less desirable than an introductory knowledge of the basic concepts of the calculus. Just as it is possible to organize the elementary teaching in statistics so that calculus need not be regarded as a prerequisite, it is possible to present the subject in such manner that these additional topics in algebra are

¹"Requirements," page 430.

not
the
alge
loge
it is
essen

W
the
thro
cour
desig
has
him
is p
W. I
are
cour
stro
defin
ment
expe
stati
diffe
elem
appr
essen
prob
the i

W
stati
ment
For
whic
ordin
calcu
nume
stati
but
stude
"R
"On
volum

not essential prerequisites. The general statement can be made that the essential training in mathematics extends through elementary algebra, plus certain topics of college algebra of which the chief is logarithms. Given students with this background in mathematics, it is possible to present the technique of economic and business statistics essential to that reading knowledge discussed above.

Advanced Statistical Training

We have suggested that the mathematical equipment essential for the student who would acquire a reading knowledge of statistics extends through elementary algebra and logarithms. Many of the elementary courses in statistics now conducted in our colleges and universities are designed in accord with these notions. It is assumed that the student has this minimum of mathematics, and the course is intended to give him a reading knowledge of the subject. The purpose of such courses is perhaps somewhat more inclusive than that had in mind by Dr. W. I. King in speaking of the "interpretation of statistics."⁶ There are several textbooks on economic statistics available for use in such a course; and notable similarity in content and approach in these texts strongly suggests that this type of course has already taken on a fairly definite form. That it will undergo further modification and improvement is not to be doubted; but that it has passed beyond the purely experimental stages is now perfectly clear. In the teaching of business statistics equal progress has not yet been made. There is still a wide difference of opinion among teachers as to the essential content of an elementary course in business statistics and, indeed, as to the general approach to the subject. One of the methods of presenting the essentials of business statistics is by use of cases; and it is highly probable that much experimentation with this method will be made in the immediate future.⁷

When it comes to the presentation of a more thorough course in statistics, whether of the border-line or of the advanced technical type mentioned above, the mathematical prerequisites must be extended. For a course designed to give that border-line knowledge of statistics which will enable a student to use statistical technique as a tool in ordinary constructive research, a working understanding of the calculus is almost indispensable. This is said, not because of the numerous specific applications of calculus processes in the handling of statistical operations, although there are numerous such applications, but because the concepts of the calculus are peculiarly helpful to a student of problems involving variable quantities and limiting magni-

⁶"Requirements," page 431.

⁷On this point, see remarks by the present writer, *Quarterly Journal of Economics*, volume XXXIX, page 471.

tudes such as frequently arise in applied statistics. The basic notions of rate of variation in differential calculus and limiting sum in integral calculus constitute an invaluable part of the mental background of one who would use statistics in his own thinking. It would perhaps be rash to say that we could not possibly teach a student to use statistics as a tool in his own studies unless he had previously learned the calculus; but it is certainly accurate to assert that he would never have that confident understanding which the true workman must acquire before the tool becomes in reality a part of himself. Given a body of students with this training in calculus, it is possible to present a much more thorough course in statistical method and statistical theory than the elementary course discussed above, without undue increase in the time spent. This intermediate course, it should be understood, can be taken by a student who has never gone through the elementary course. The mere fact that he has had the more thorough mathematical background enables him to progress more rapidly and acquire a more comprehensive view of the subject of statistics.

For the relatively small number of students who would become specialists in statistics, there seems no choice but to insist upon a thorough grounding in many of the advanced subjects of modern mathematics. Such a student should be familiar not only with the calculus, but with differential equations—ordinary and partial—with the elements of the function theory, with finite differences, and with the properties of certain curves and surfaces not ordinarily studied in courses in analytical geometry. Remote as may appear the connection between the subject and statistics, theoretical mechanics is a topic of which knowledge would be very helpful. The statistical course itself must be an advanced or second course for these students. They should first have had the elementary or, preferably, the intermediate course. The advanced course should plunge immediately into the theoretical problems of statistics and develop in detail and thoroughly the mathematical bases of the subject. The theory of probabilities, with all its modern connotations, would constitute a large fraction of the topical content of the course. An extensive treatment of the algebraic and the geometric features of correlation, thorough study of the problems of curve fitting, and an approach to the theory of sampling would be included. It is not to be expected that all of the special knowledge which the advanced student in statistics should acquire could be included in a single course of this type. Such a student must do special work outside of his course program, read widely in the literature, become familiar with the current unsolved problems in the field, and work out for himself that general outline of the theory which can scarcely be found in any of the treatises or texts. The small group of students receiving this highly specialized training will have the task

of solving the more intricate statistical problems of the future, of giving critical guidance to their less well-trained fellows, and of furnishing a constructive leadership in the profession of statistics.

In summary, we are suggesting that the great majority of students in economics and business, most of whom have a real need for some knowledge of statistics, can acquire an adequate knowledge, which we have called a reading knowledge, with no mathematical background beyond a moderate training in elementary algebra and in logarithms. For these students the subject content of the elementary course in economic statistics has already been well developed and has taken a workable form in several of the modern texts, whereas the subject content in business statistics is still in process of evolution and will probably not be in approximately final form for several years. For a somewhat smaller group of students of economics and business, who are desirous of using statistical technique in the handling of their own problems, we have suggested that a first course in differential and integral calculus is highly desirable if not quite essential, and that correspondingly an intermediate course in statistics can be given which has a much more comprehensive topical content than the elementary course.

Finally, it appears that the student who would become a statistical specialist must be prepared to make the same thorough study of numerous advanced mathematical topics as he would to become a specialist in any other field of applied mathematics. These suggestions are, of course, made tentatively and with a full realization that accumulating experience may suggest modifications in principle, and that as a matter of fact we shall find specific exceptions in the case of individual statisticians who not infrequently achieve largely with a minimum of mathematical knowledge or fail completely despite their familiarity with formal mathematics.

W. L. CRUM.

Harvard University.

DOES TRADE "FOLLOW THE DOLLAR"?

The opinion has gained general acceptance that investments abroad have an important effect in stimulating export trade, since (it is assumed) the manufacturers of the country supplying the capital are assured of a preference over other nationalities in the sale of materials and equipment for these undertakings. This power of aiding trade is ascribed to one or other of two sorts of investment:

a) Loans, as for Chinese government railways. The loan contract it is said, commonly requires the purchase of material and equipment from the country of the lenders;

b) Investment at the investor's own risk, as when a European company obtains a concession for a railway enterprise in South America. In that case, it is said, the investors give a preference in making purchases to manufacturers of their own nationality.¹

This opinion in its two variants is not only widespread; its numerous and frequently eminent proponents ascribe to the method suggested an exceedingly great commercial value. Thus, Mr. James A. Farrell, now president of the United States Steel Corporation, as quoted (p. 137) in *Selling in Foreign Markets* (No. 81 in the Miscellaneous Series of the Bureau of Foreign and Domestic Commerce), said that "a great many of these projects in foreign countries are financed by European bankers, and stipulations are made that the materials shall be bought in the country where the financing is being accomplished."

Senator Medill McCormick in the *Saturday Evening Post*, May 26, 1923, p. 7, referring to Brazil, writes: "The material which enters into the construction of railways and public works, the engineers and contractors engaged in their construction, are generally found in the country which supplies the capital. It is no wonder, then, that the rolling stock of the Argentine railways is British while that of the Brazilian railways is American."

It is of course true that (without any contract stipulation) loans and other export of capital bring about an exportation of goods from the lending country—as the payment of the loans, like other payments abroad, is effectuated through an exportation of goods. As Mr. Withers has said (*Com. & Finan. Chronicle*, May 16, 1925, p. 2484) the goods exported in payment of the loan need not be the particular sort of goods required for the enterprise for which the loan is made. "If a South African state that is building a railway raises a loan in London, it may spend the proceeds on steel rails manufactured in Belgium or on rolling stock manufactured in the United States, but the Belgian or American seller of the goods in question will take payment in sterling drafts because sterling credit is all that the borrowing government has got for making payment for them, and either they or someone else to whom they pass the credit must buy something in England, for England is the country and the only country where the particular kind of money that has been borrowed passes current in exchange for goods and services." That general effect in increasing the aggregate exports of a country is, however, far different from a monopoly in supplying the needs of the enterprise sustained by the loan.

Mr.
the Bu
the N
(quo
must b
cularly
railroa
chiner
August
Confere
ago s
Brazil
compa
A s
its wi
great
lack,
termin
probab
"Exp
Econom
insiste
procee
Chicag
in an
provin
Europ
necessa
had w
rails, l
Foreign
buildin
would
the E
Secret
Remin
Trade
Richar
Simplic
Foreign
Conve
Comm
Chin
p. 27)
306, E
wired
Museu
Agent
Presid
and F

Mr. G. M. Jones, chief of the Finance and Investment Division in the Bureau of Foreign and Domestic Commerce, in an address before the New England Foreign Trade Convention, Boston, May 18, 1923, (quoted in *Commerce Report*, May 21, 1923) said: "Exportation must be facilitated by loans placed in this country. This is true particularly in the case of locomotives, freight and passenger cars and other railroad equipment, and of electrical, mining and other heavy machinery." The ambassador from Brazil to the United States, Mr. Augusto Cochrane de Alencar, in an address before the World Trade Conference of the National Association of Manufacturers some years ago said: "One great handicap which your business men suffer in Brazil is the fact that their investment of capital is so insignificant as compared with the investments of their foreign competitors."

A somewhat extended examination of this opinion seems justified by its wide prevalence, the high repute of many of its proponents, and the great importance which they attach to it, as well as by the apparent lack, in the entire literature of trade, of any adequate attempt to determine whether the alleged coincidence of loans and sales is reasonably probable or in accordance with the facts of commerce.

²Expressions of similar purport are many: W. S. Culbertson—(*International Economic Policies*, p. 384): "Financial groups in Europe have not infrequently insisted upon a provision of this character in loan contracts" (that all or part of the proceeds of the loan shall be spent in the lending country). Edward A. Biggs of Chicago, General Counsel Foreign Trade Division, Mississippi Valley Association, in an address at Kansas City: "Investment in foreign governmental, municipal, provincial railway and industrial securities under the conditions imposed by European capital usually carries with it a priority right in the supplying of all necessary equipment." Kidd, *Foreign Trade*, p. 41, tells of a New York bank which had within the last two years "opened the market in that country for American rails, locomotives" etc., (as though that market had previously been closed). De Haas, *Foreign Trade and Shipping*, p. 29: If American financiers were to undertake the building of a railway line in Argentina, the rails, bridges, cars, locomotives, etc., would be "largely if not wholly supplied by manufacturers in the U. S." *Report on the Economic Situation of Belgium at the End of 1921* by the British Commercial Secretary at Brussels, p. 58; Lahee, *Our Competitors and Markets*, pp. 21-2; Franklin Remington as quoted in *Export Trade and Finance*, June 28, 1924; U. S. Federal Trade Commission, *Report on Cooperation in American Export Trade*, part 1, 72-3; Richard Washburn Child in *The Saturday Evening Post*, June 12, 1926; Frederick Simpich, *Saturday Evening Post*, April 26, 1924, p. 40; J. J. Arnold, *National Foreign Trade Convention 1915*, 39-40; Benjamin Rush, National Foreign Trade Convention 1919, *Proceedings*, p. 490; the U. S. Consul General at Canton, China, *Commerce Reports*, June 25, 1917, p. 1145; *New Atlas and Commercial Gazetteer of China*, p. vii; U. S. Tariff Commission, Tariff Information Survey, C 29 (*Machinery* p. 27); *Mexico as a Market for the Sale of U. S. Goods* (Trade Information Bulletin 306, Bureau Foreign and Domestic Commerce); *Entwicklungstendenzen der Weltwirtschaft*, by Sigmund Schilder (Sekretär des K. K. Oesterreichischen Handels Museum in Wien) vol. I, 341 *et seq.*; *South America as an Export Field* (Special Agents Series 81, U. S. Bureau Foreign and Domestic Commerce) p. 195; O. B. Iles, President of the International Machine Tool Company, Indianapolis, in *Export Trade and Finance*, May 30, 1925, p. 9.

Expressions of this opinion have most frequently referred to the railways of China and South America; the Chinese railways have accordingly, under the necessary limitations of time and space, been chosen for investigation, together with the railways of Brazil, Argentina and Chile, which make up almost nine-tenths of the South American railway mileage. The period selected for a statistical study of sales as compared with investment is the series of years just preceding the Great War, since post-war commerce has been subject to numerous abnormalities which might lead some readers to question inferences based on the trade of this period. In fact, any series of years fairly to be regarded as normal would serve; we are dealing essentially with a question of commercial psychology; and the specific motives here considered as actuating men of business are not a matter of quickly changing fashion. Aside from the statistics of sales, most of the discussion will be found to have a pretty general application as to time. So much of it refers to other countries and even to lines of investment other than railways that I hope it may prove fairly convincing as to the whole subject.

When the manufacturers of an investing nationality are able (like those of Great Britain) to supply needed material of good quality at low prices, the national prejudice may doubtless have an appreciable influence. Governments (notably the French) have at times attempted, with doubtful success, to give their manufacturers a preference. But current discussion refers to that great majority of investments which are shaped by the parties at interest free from government interference. It represents the nationalistic motive as serving, by the voluntary choice of the investors, substantially to extend markets for producers unable by their own efforts to compete. There has not been found, in connection with the enterprises here studied or in other instances specified by proponents of this doctrine, any case free from government interference in which nationality has clearly exercised the influence ascribed to it. It seems safe to conclude, therefore, that there is no such *general* practice. Where the motives of economy and patriotism are clearly opposed to each other the best market seems to prevail. Indeed, it seems improbable on a moment's reflection that either borrowing government or investing shareholder would consent to such a sacrifice of economic advantage.

First, as to loans, it is evident that no borrower would voluntarily consent to this arrangement,—which can therefore be imposed only by constraint (physical or financial) or by fraud. Mr. Farrell in an address to the Third National Foreign Trade Convention (1916) distinguished between two kinds of purchases by foreigners—"general merchandise sold to dealers and consumed by individuals whose choice is regulated only by a desire to obtain satisfactory goods at a low

price,"
quired
regar
such
world-
that "
business
loans t
ethical

In t
by a
assume
motive
(No o
able.
men h
Even
amoun
pect a
go ab

Mo
some
instan
railwa
1887;
in 191
adequ
1913'
ratios
for ea
ing c
W
likely
that
and
to wh
alleg
dicat
Arge

*Rol
*Arc
*An

price," and material for construction, machinery and equipment required for the development of extensive enterprises" (impliedly in disregard of quality and price). Schilder offers as an advantage of such loans that they "soften the full intensity of competition in the world-market;" and Mr. Biggs (cited in the preceding note) remarks that "all other nationals are practically debarred from competing for business." We are thus apparently dealing with an employment of loans to exclude competition in selling, with whatever that purpose may, ethically or commercially, connote.

In the second class of investments—such as the building of railways by a foreign corporation in Argentina or Brazil—it is apparently assumed that the administrators of such an enterprise will be led by motives of patriotism to prefer the products of their own countrymen. (No other motive, at any rate, is suggested.) This is highly improbable. Many billions of goods are exchanged between nations because men have no marked preference for the goods of their competitors. Even the home railways of France and other countries use large amounts of imported equipment. There is no apparent reason to expect a different policy by investors of the same countries when they go abroad.

Moreover, any chiefs of South American railways who might by some eccentricity be inclined to this sort of patriotism would in most instances find it impossible to gratify such sentiment. The Argentine railways earned 3.44 per cent on investment in 1877; 4.83 per cent in 1887; 2.31 per cent in 1897; 4.33 per cent in 1907; and 4.44 per cent in 1910.² Only about 20 per cent of the Brazilian railways have paid adequately. The operating ratio for them all was 83.81 per cent in 1913³; and some of the foreign lines in that period showed operating ratios of 109, 112, 97, and 250. Here appears no brilliant prospect for easy money to be distributed in largesses to deserving manufacturing compatriots.

When there is little to choose in point of price or quality, it is quite likely that nationalistic sentiment might be decisive; but it appears that prices and quality of equipment differ widely, as between countries and dealers. The following illustration fairly exemplifies the degree to which such bids vary and the degree of sacrifice involved in the alleged preference for nationality as against cheapness. Bids as indicated (prices per ton) were received for supplying steel rails to the Argentine government railways in 1921:⁴

²Roll, *Encyklopaedie des Eisenbahnwesens*, I, 262.

³*Archiv für Eisenbahnwesen*, 1922, p. 860.

⁴*Annalist*, Sept. 5, 1921, p. 225.

Bidder	Country	Bid per ton
Consolidated Steel Corporation	United States	\$62.15
Krupp	Germany	44.11
Sambre & Moselle	Belgium	56.00
Forges de la Providence	Belgium	39.79
Westfalenwerke Bochum	Germany	45.68
Acéries de Longwy	France	44.82
Phoenix	Germany	44.29
Biedermann & Co.	Czechoslovakia	54.50
Union Dortmund	Germany	43.25
United States Steel Products Co.	United States	61.75
Barrow-Hem Works	England	56.26
Wendel & Co.	France	46.31
C. T. Bowring	England	51.87
W. H. Muller & Co.	Holland	48.00
Cochrane & Co.	England	58.95
Schneider-Creusot	France	47.23

Details of the bidding in eleven other instances (two of them including numerous items) may be found if desired in the sources cited below. The difference between offers was \$60,000 in one instance and ranged from \$1,200,000 to \$2,000,000 in another. In one case there was a difference of 70 per cent. Of seventeen remaining items, in two the bid next to the lowest exceeded the lowest by less than 2 per cent; in seven from 3 to 5 per cent; in the others respectively by 87; 53; 61; 21; 6.5; 18; 6.5 and 17 per cent. As between the lowest and any above the one next to the lowest the inequality was of course greater. It is obviously impossible to believe that nationality determines the choice of markets in disregard of such differences as these.

But even if investors were disdainful of profit, and foreign railways profitable as railways never are, such efforts at commercial expansion would still in most cases be defeated by the refusal of foreign governments (whether borrowing or granting charters) to subject their railway systems to uneconomical methods of purchasing. The governments of China, Argentina, Brazil, and Chile, instead of granting monopoly to investors, have constantly, and for the most part successfully, endeavored, in contracts for railway loans and for railway construction by private companies, to secure competitive conditions.

*Rails for the Chilean Arica-La Paz railway (*Report of the Ministry of Industry and Public Works 1913*, p. 12); Equipment for the Shanghai Municipal Electric Plant (*Far Eastern Review*, March, 1916, p. 404 and 406); Locomotives for an Egyptian railway (U. S. Tariff Commission *Tariff Information Survey*, C 29, pp. 30-1); Various cars for the Western Minas Railway and Tie Plates for the Central Railway, Brazil (*Daily Consular and Trade Reports*, Sept. 27, 1913, p. 1735); Locomotives for the Central Argentine (British) Railway (*Daily Consular and Trade Reports*, July 14, 1914); Engines for Royal Siamese Southern Railway (*D. C. and T. Reports*, July 30, 1914); Rails for Siamese Government Railways (*D. C. and T. Reports*, Sept. 28, 1912, p. 1581); Track for Manchester Municipal Railways (*D. C. and T. Reports*, Sept. 25, 1912, p. 1553); Cars for Chilean Government Railways (*D. C. and T. Reports*, Sept. 21, 1911, p. 1335).

From an examination of the seventeen important Chinese government railway loan contracts with Americans and Europeans from 1898 to the outbreak of war in 1914 it appears that the lenders' nationality has been uniformly denied a preference over better offers from other sources.⁷ In every case but one the lenders are made purchasing agents, but in every case but that same one (the North China Railways) it is stipulated in varying terms that the purchases must be made in the best or open market. In every case purchases were subject to Chinese official control; in seven cases out of the seventeen, tenders were to be called for by the Chinese government, and in ten cases there are further checks on purchases—orders being placed by agreement between the lenders and the Chinese or subject to specific approval by representatives of China.

It is ordinarily agreed that the chief engineer shall be of the lenders' nationality; but in thirteen of the seventeen contracts he may be selected jointly by the lenders and the Chinese government, or at least with the approval of the government, and in ten cases he was expressly subject to Chinese control.

The lenders' nationality was in ten contracts given a preference, but in all except one case only if materials were not obtainable in China (as to a considerable extent they have been) and only in case the lenders' nationality offered goods at equal prices and of equal quality. This seeming advantage would, however, seldom be of value if the requirement of competitive purchase were observed. It has been shown above that prices in such bidding are seldom equal.

It seems true, however, that in some instances foreigners acting as purchasing agents for the Chinese government have profited by a violation of a well-defined trust, depriving the Chinese of the advantage of competition guaranteed by contract. In this, however, there is no fundamental difference between the opportunities of international and domestic business.

In Argentina, Brazil and Chile foreigners have built railways for governments, built and operated railways on their own account, and leased government roads for private operation. The principle of competition has been maintained in contracts for building new railways on government account and in purchases for the government roads.

In Argentina, under law No. 775 (July 17, 1876) relating to nation-

⁷For text of these contracts see the collections of treaties by Rockhill and MacMurray. The contracts referred to provided capital from the United States for one line, the Hankow Canton project (substantially no building was done on the American section of the Hukuang system); British capital for the North China, Shanghai-Nanking, Peking Syndicate, Canton-Kowloon, Tientsin-Pukow, Shanghai-Hangchow, Sinyang-Pukow, Shasi-Hsingyi, Nanking-Hunan; one German, Tientsin-Pukow; and five Russian-French-Belgian: Peking-Hankow, Shansi, Kaifeng-Honan, Tatung-Chengtu, and Lanchow-Haichow; the Four-Power, Hukuang loan.

al public works, the principle is established that all public works (defined as "all those which are constructed for account of the national treasury") shall, as already provided by the law of audits of Sept. 26, 1870, be contracted for by means of public tenders, save in the following cases: (1) When the cost is not more than 1,000 pesos specie; (2) when circumstances require exceptions as to individual purchases; (3) in cases of urgency when for unforeseen reasons bids cannot be hoped for; (4) when after two calls no bids, or none acceptable, have been received; (5) when works or objects of art are involved which can be entrusted only to special artists or workmen. The law further provides in detail the method of preparing specifications, calling for tenders, and dealing with them, the deposits of security by bidders, etc. Tenders might be dispensed with, in the exceptional cases mentioned, only with express authorization by the ministers.

Other laws and decrees refer to the requirement of competitive purchase, as the law of April 16, 1895, and the decrees of May 19, 1896, limiting non-competitive purchases to cases in which the amount is not more than 1,000 pesos, and the funds to be employed have been expressly appropriated in the budget.

The laws of Chile make especially careful provision for competitive award of contracts for railway building and supply on public account.*

In Brazil, decree No. 1126, December 18, 1903, providing specifically for a road between Timho in the State of Bahia and Propria in Sergipe, has been quite generally followed for securing competition in government railway construction up to the present time." The method of competition had apparently been a requirement of law at least as far back as 1874 (decree No. 5561, Feb. 28, 1874).

One may observe the operation of these laws by noting in the official gazettes of the respective countries the frequent advertisements calling for tenders to supply the several national railway systems. If those publications are not at hand the student may find the same announcements quoted in the *Commerce Reports* of the United States and the British *Board of Trade Journal*.

But even as to purchases for private railways, South American law is almost as clearly calculated to protect the people of these nations from loss through uneconomical expenditures for their transportation

*A decree of July 5, 1897, required sealed bids in the purchase of all sorts of railway materials, for construction, equipment or operation except when the nature of the goods makes this impracticable or when they must be obtained abroad, and there is not time to get bids, or when, in emergencies, to repair losses suffered by the road, it is necessary to buy in small quantities. The director general of public works must in such cases report to the ministry. Similar or supplementary regulations were issued March 31, 1898; Oct. 24, 1907; Aug. 16, 1910; June 16, 1911.

**Diccionario Historico Geographico e Ethnographico do Brazil*, primeiro volume, p. 733; *Brazil Ferrocarril*, January 15, 1921, p. 16.

facilita
to the
publ

In

have

unavo

comp

cipate

ment

admin

an es

accou

the la

influe

taxed

would

tion o

40 pe

incom

quire

ing st

As

regul

ing th

it has

of ac

In

both

conce

centu

by th

to pr

24, 18

thoug

6995

26, 18

was g

sary

telegr

guar

metho

Paulo

speci

price

facilities. Legislative restraint in this part of the field is largely due to the substantial community of interests between the railways and the public treasuries.

In Argentina, roads enjoying a government guarantee of interest have been required to give evidence that a shortage to be made up was unavoidable. A decree of December 19, 1876, required a guaranteed company to submit to official examination its annual budget of anticipated expenses. A decree of April 7, 1896, provided that a government inspector should reside at the place where the company had its administrative office, and prepare with the management of the road an estimate of wages, salaries and other expenses and inspect their accounts. The general scheme of regulations for private railways, in the law of October 7, 1907, must logically exert a similar restraining influence on all private companies, with or without guaranties. It taxed railways three per cent on their net income, but assumed that net would always be 40 per cent of gross. A railway to secure a reduction of this tax must prove that its net earnings were not so great as 40 per cent of gross—impliedly that the expenditure deducted from income in making this calculation was necessary. The same law required reports to the executive authority specifying purchases of rolling stock, rails and other materials.

As to Chile, I have found only what purports to be a provisional regulation of private railways (decree of October 19, 1904), subjecting their rates to government regulation. A regulation of charges, if it has any significance, pretty certainly implies an estimate not merely of actual but of economically proper costs.

In Brazil private railways have been controlled in their expenditure both under the old system—prevalent in the nineteenth century—of concessions, frequently with guarantee of interest, and the twentieth century policy under which the guaranteed roads have been bought up by the government, and these (as well as other government lines) leased to private operating companies. Imperial decree No. 2450, September 24, 1873, "established the principle of competition" for concession lines, though it is not certain how far that principle was applied. Decree 6995 (August 10, 1878) in agreement with legislative decrees of June 26, 1857, and September 24, 1873, limited the capital on which income was guaranteed to that amount "recognized by government as necessary and sufficient for acquiring rolling stock and fixed materials, telegraph lines, etc." In 1890 (October 16) the amount of capital guaranteed was limited to 3,000 milreis gold per kilometer. This method was continued, for example, in the case of the important Sao Paulo road in 1901 (decree of March 7), with a requirement of minute specifications as to construction and equipment, including a table of prices; the prices were to be approved by government.

The construction of new lines for the government under the present-day policy of leasing them is, of course, subject to the laws already quoted which prescribe competition for public work. The law of December 9, and executive decree of December 28, 1896, provide that leases of government railways to operating companies shall be granted by competition. Companies which find themselves free from any of these checks must be rare indeed.

The railways of Argentina have been predominantly British with a comparatively small investment of French and Belgian capital, a few miles owned by citizens of Argentina and the remainder government owned.¹⁰ About the end of 1909 there were 14,910 miles of railways in operation in Argentina, of which 13.5 per cent were owned by the government and 86.5 per cent (12,898 miles) privately owned. Of these privately owned roads 11,317 miles were British and 1418 were French. The Argentine Railway, incorporated in Maine by the Farquhar-Pearson syndicate, with \$45,000,000 capital, is chiefly a holding company. Its headquarters are in London (Koebel, *Anglo-South American Handbook*, 1921). There is little American capital in it (Special Agents' Series 169, Bureau of Foreign and Domestic Commerce). There was no German capital in Argentina railways;¹¹ Belgian capital is here as in other countries associated with French, but not in sufficient amounts to give any road the reputation of being Belgian.

In 1912 there were in Chile 4501 miles of railway, of which 2582 belonged to the state and 1919 to private companies. Nearly all the private lines belonged to the British; one line is reported as German. Of a total investment of about \$176,497,000 the state owned \$86,867,000 (49.22 per cent.) the British \$82,777,000 (46.9 per cent.), the Germans \$1,168,079 (0.66 per cent.); Chilean capitalists had invested \$568,000.¹²

In Brazil, during the pre-war years 1911-12-13, the chief private owners or leaseholders of railways were French or French and Belgian, with the British second. The one German line had a length of only about 32 miles. The participation by citizens of the United States

¹⁰*London Economist*, Nov. 28, 1909, p. 1085. The French roads were (1) The Province of Santa Fe; (2) Province of Buenos Aires; (3) Rosario.

Halsey, *Railway Expansion in Latin America*, p. 8, about half a dozen years later, puts the British mileage at 14,300, 82.5 per cent out of 17,330. British investment, Halsey estimates at \$970,000,000; Paish (*Jour. Royal Stat. Soc.*, Jan., 1911, p. 181) at £186,000,000. The *Railway Age*, April 18, 1919, p. 1004, reports the capital in the three French lines as 128,000,000 gold pesos, equal to nearly that number of dollars. These reports in combination confirm the *Economist's* estimate of the relative unimportance of the French investment.

¹¹W. A. Hirst, *Argentina*, p. 180-1, reports £12,000,000 of German capital in that country, chiefly banks and tramways.

¹²*Synopsis Estadística de la República de Chile*, 1920, p. 158, vol. XII (Comunicaciones); *Chilean Review*, August, 1921, shows a continued British predominance after the war.

was slight—withstanding frequent reports of extensive investments from this country, as in Senator McCormick's article in the *Saturday Evening Post*, already referred to.

The so-called American lines were the Brazil Railway, the Madeira-Mamore and the Sorocabana. These companies were incorporated in Maine, and North Americans have been lenders in their operations; but their ownership has been chiefly European.

The Brazil Railway Company, in the years referred to, controlled the other two; it was, as early as 1911, chiefly French or French Belgian, with considerable holdings of its securities in Great Britain and a sprinkling elsewhere in Europe.¹² The opinion that this extensive system was American is a hasty assumption from the nationality of its promoters. The subsidiary companies united by the Brazil Railway as a holding or leasing company were also largely French or French Belgian.

In addition to the interest of French capitalists in the Brazil Railway Company and its subsidiaries, four railways in Brazil have been regarded as decidedly French,—though they are also sometimes referred to as French-Belgian, the degrees of national participation being uncertain.¹³ It appears that the lines here listed as predominantly French have been in general under French control during their earlier history when the existing equipment was purchased and standards established.¹⁴ The British ownership of the lines so designated seems also to be beyond question as well as their having been in most cases British

¹²An inquiry addressed to the office of the Brazil Railway Company in New York brought a reply dated January 29, 1925, that "while the company is incorporated under the laws of the state of Maine, U. S. A., its affairs are managed by the bondholders through a committee known as the Joint Committee of Bondholders, whose office is in Paris, France. We are of the opinion that substantially all of the bonds are owned in France, Belgium and England, with a small scattering of American and Canadian holders. This is probably true also of the Sorocabana Railway Company which is a subsidiary of the Brazil Railway Company." The history and ownership of these lines and their subsidiaries may be studied in *Banking Opportunities in South America* (Special Agents Series 106) p. 25; *Cassier's Magazine*, June 1911, p. 150; *Daily Consular Reports*, Jan. 3, 1911; *Belgian Consular Reports*, vol. 151, 1910 and vol. 146, 1909; *Commercial and Financial Chronicle*, August 13, 1910, p. 306 and August 10, 1912; *Statist*, Feb. 10, 1912, p. 36 and Oct. 18, 1913; *Economist*, Jan. 2, 1904, p. 12; *Bulletin Pan American Union*, vol. 33, 1911, p. 959; vol. 32, p. 432; *Archiv für Eisenbahnwesen*, 1910, pp. 111 and 285.

¹³Goyaz; Victoria and Minas; Bahia System; Noroeste de Brazil. See: *Cassier's Magazine*, June, 1911, p. 150; Halsey, *Railways of Central and South America*, p. 61; *Railway Age Gazette*, Jan. 6, 1911, p. 40; *Brazilianische Rundschau*, August, 1910, p. 107; *Dicionario Historico, Geographico e Ethnographico do Brazil*, primeiro volume, p. 734; *Royaume de Belgique, Recueil Consulaire*, vol. 151, 1910, p. 35; *Bulletin, Union of American Republics*, June, 1908, p. 1261.

¹⁴*Royaume de Belgique, Recueil Consulaire*, 1909, p. 185, and 151, 1910, pp. 87 and 92; *Cassier's Magazine*, June, 1911, p. 149; *Annuaire de Brazil Economique*, 1913, p. 189; Halsey, *Investments in Latin America and British West Indies*, p. 161; *Brazilianische Rundschau*, Aug., 1910.

from the beginning.¹⁶ The German ownership of the Blumenau Railway is well known.¹⁷

Out of 13,817 miles of railway in operation in Brazil at the end of 1911, the French-Belgian interest constituted 35.96 per cent (4968 miles); the distinctly French 10.3 per cent (1428 miles), making 46.26 per cent of the entire railway mileage of the country dominated by French owners in association with Belgians. The British lines were 23.5 per cent of the total (3257 miles) and the German one-fourth of one per cent (32 miles).

Tables I, II, and III show the source of the rolling stock and rails imported to Argentina, Chile, and Brazil in the five pre-war years, 1909-1913.¹⁸ Tables IV, V, and VI combine for comparison the exhibits of investment and of trade; they leave no reasonable doubt of very large purchases for the foreign railways in those countries in disregard of the investors' nationality.

TABLE I

LOCOMOTIVES IMPORTED BY ARGENTINA, BRAZIL, AND CHILE, 1909-1913

From	To Argentina		To Brazil		To Chile	
	Number	Per cent of total	Tons	Per cent of total	Tons	Per cent of total
United Kingdom	612	47.5	7,500	12.4	11,633	65.4
United States	50	3.88	31,046	51.5	3,017	11.3
Germany	525	40.8	12,648	21.0	5,400	30.4
France	15	1.2	140	.2		
Belgium	69	5.4	2,941	4.8	559	3.1
Totals ¹	1,287		60,282		17,772	

¹Including all other countries.

¹⁶The British roads were the Santos (139 miles); Leopoldina (1831 miles); Great Western (740 miles); North Eastern (437 miles); Brazil Great Southern (110 miles). *Cassier's Magazine*, July, 1910; *Archiv für Eisenbahnwesen*, 1910, p. 111 and 285; *Encyclopedia of Latin America*, p. 845; *Economist*, June 13, 1903 and Jan. 2, 1904; *Fortnightly Review*, vol. 39, 1883, pp. 408-9. Certain of the lines held by the British Northeastern System had earlier been French (*Moody's Magazine*, Nov., 1914; *Bull. P. A. Union*, 30, 1910, p. 650.)

¹⁷Wiener in *Cassier's Magazine*, March, 1911, p. 454; *Archiv für Eisenbahnwesen*, 1910, p. 304; Dettmann, *Das Moderne Brasilien*.

¹⁸The figures for Argentina are taken from a tabulation from the *Railway Age*, April 25, 1919; for Brazil and Chile from the official import statistics of those countries.

TABLE II
CARS IMPORTED BY ARGENTINA, BRAZIL AND CHILE, 1909-1913

From	To Argentina		To Brazil		To Chile	
	Number	Per cent of total	Tons	Per cent of total	Tons	Per cent of total
United Kingdom	11,329	49.17	27,488	15.3	6,874	30.6
United States	2,176	9.44	47,501	26.5	3,567	15.9
Germany	1,602	6.95	7,281	4.0	4,328	19.4
Belgium	7,277	31.59	93,453	52.1	7,428	33.0
France	594	2.58	3,134	1.7		
Totals ¹	23,038		179,376		22,460	

¹Including all other countries.

TABLE III
RAILS IMPORTED TO ARGENTINA, BRAZIL AND CHILE, 1909-1913

From	To Argentina		To Brazil		To Chile	
	Tons	Per cent of total	Tons	Per cent of total	Tons	Per cent of total
United Kingdom	426,124	39.7	103,978	10.3	58,680	255.9
United States	198,830	18.5	178,670	17.8	47,343	20.9
Germany	291,238	27.0	131,536	13.1	56,933	25.1
Belgium	80,246	7.5	312,682	31.2	40,833	18.0
France	40,723	3.7	271,658	27.1	961	.4
Total ¹	1,037,166		1,602,085		226,782	

¹Including all other countries.

TABLE IV
ARGENTINA—EXTENT OF RAILWAY OWNERSHIP BY THE SEVERAL NATIONALITIES
COMPARED WITH THE EXTENT OF THEIR RESPECTIVE SALES OF
LOCOMOTIVES, CARS, AND RAILS

Nationality	Per cent of railway ownership	Share of each selling country as per cent of total importation 1909-1913		
		Locomotives	Cars	Rails
Investing countries:				
United Kingdom	75.9	47.5	49.17	39.7
France	9.5	1.2	2.58	3.7
Total	85.4	48.7	51.75	43.4
Non-investing countries:				
Belgium	slight	5.4	31.59	7.5
United States	none	3.88	9.44	18.5
Germany	none	40.8	6.95	27.0
Total		50.08	47.98	53.0

TABLE V

CHILE—EXTENT OF RAILWAY OWNERSHIP BY THE SEVERAL NATIONALITIES COMPARED WITH THE EXTENT OF THEIR RESPECTIVE SALES OF LOCOMOTIVES, CARS, AND RAILS

Nationality	Per cent of railway ownership	Share of each selling country as a per cent of total importation 1909-1913		
		Locomotives	Cars	Rails
Investing country: United Kingdom	46.9	65.4	30.6	25.9
Non-investing countries: United States	none	11.3	15.9	20.9
Germany	slight	30.4	19.4	25.1
Belgium	none	3.1	33.0	18.0
France	none	....	....	.4
Total		44.8	68.3	64.4

TABLE VI

BRAZIL—EXTENT OF RAILWAY OWNERSHIP BY THE SEVERAL NATIONALITIES COMPARED WITH THE EXTENT OF THEIR RESPECTIVE SALES OF LOCOMOTIVES, CARS, AND RAILS

Nationality	Per cent of railway ownership	Share of each selling country as a per cent of total importation 1909-1913		
		Locomotives	Cars	Rails
Investing countries: United Kingdom	23.5	12.4	15.3	10.3
France	46.26	0.2	1.7	27.1
	(inc. French-Belgian)			
Belgium	(minority of last)	4.8	52.1	31.2
Total	69.76	17.4	69.1	68.5
Non-investing countries: United States	slight	51.5	26.5	17.8
Germany	slight	21.0	4.0	13.1
Total	slight	72.5	30.5	30.9

The tables show first that the British, with all their capability as manufacturers and their advantage as pioneers, failed to supply fully their own railways. Their sales in Argentina were only about 40 to 50 per cent of the total, instead of the 75.9 per cent which they should have sold, even if their sales went solely to their own lines and not at all to the other foreign or to the Argentine properties. In Chile like-

wise their sales of cars were only 30.6 per cent and rails 25.9 per cent—their property being 46.9 per cent of the total. Operating by ownership or lease one-fourth of the Brazilian railways, they sold of the several classes of goods, 12.4, 15.3, and 10.3 per cent, respectively.

The French, with nearly 10 per cent of the Argentine roads, sold only 1.2 per cent, 2.58 per cent and 3.7 per cent of locomotives, cars and rails. In Brazil, with a predominant interest in almost half the railway mileage, they sold substantially no locomotives or cars and only 27.1 per cent of the rails.

The nationalities without substantial investment sold more of these goods in Argentina than the two nationalities which owned 85.4 per cent of the railways in the country. In Brazil the Americans and Germans, with insignificant investment, sold 72.5 per cent of the locomotives (against 17.4 per cent by the investing nations). In Chile the non-investing countries sold about two-thirds of the cars and rails—apparently encroaching on the putative claims of the British who owned nearly half of the total railway capital.

A report of the Brazilian Ministry of Communications and Public Works, showing the origin of railway stock on the railways of Brazil at the end of 1911, indicates that the British had, on the whole, been first in supplying their own railways (the tables above show only imports, 1909-1913); but even on the Santos Railway (British as far back as 1859) there were 750 Belgian cars, and the Northeastern system, the Leopoldina and the Great Southern each reported more American locomotives than British. Of 1213 locomotives reported (some lines failed to report) only 23 were French, 739 came from the United States, 303 were British and 148 Belgian "or other." On the French-Belgian lines, only 16 locomotives out of 402 were French or Swiss (these being grouped together); while the locomotives from the United States were almost four times those made in the country chiefly financing these lines.

Just before the outbreak of the Great War, the railway mileage of China was somewhat over 6,000; of this the government lines built with foreign capital had a total of about 2800 miles. The remainder consisted of French and German companies (600 miles) whose purchases were closed to international competition by the terms of their charters; the Russian and Japanese roads (1900 miles); and 1000 miles constructed with Chinese capital.

The following table shows the importance of each of the five nationalities chiefly concerned, as lenders for government railways in China and as sellers of rails and rolling stock for the entire railway system of China (including sales for other lines as well as those built with government loans) for the years 1898-1912.

TABLE VII

From	Railway loans to the Chinese government ¹	Exports of rails and rolling stock to China	
		Value	Percentage of capital loaned for railways
United States	\$ 3,000,000	\$11,485,000	382.82
Germany	29,761,000	9,473,000	31.79
Great Britain	52,394,000	6,898,000	13.16
France	27,100,000	651,000	2.40
Belgium	11,600,000	12,851,000	110.78
Total	\$123,855,000	\$41,349,000	

¹The totals of lending are made up as follows (in thousands of dollars):

BRITISH		FRENCH	
North China Railway	9,595	Peking-Hankow (2/3)	15,000
Shanghai-Nanking	14,500	Shensi	8,000
Peking-Syndicate	3,999	Kaifeng-Honan (1/2)	4,100
Kowloon	7,500		
Tientsin-Pukow	16,800	Total	27,100
Total	52,394		
AMERICAN		BELGIAN	
Canton-Hankow	3,000	Peking-Hankow (1/3)	7,500
		Kaifeng-Honan (1/2)	4,100
GERMAN		Total	11,600
Tientsin-Pukow	29,761		

As to the division of the Peking-Hankow and Kaifeng-Honan loans between French and Belgians, Hsu says the Peking-Hankow capital was four-fifths French; Kent says two-thirds; *British Board of Trade Journal*, July 28, 1907, all French. Reports as to the Kaifeng-Honan participation are similarly confused. At any rate, the greater contribution of French capital is generally recognized; the degree of this excess will not prove important for our present purpose.

Though the United States has been second in supplying this market, only a small part of that business can by any possibility be ascribed to loans. Only one American loan (the Brice enterprise of 1898) has in any way led to railway construction² and most of the capital provided under that agreement was never used. The rails from that small line had a value of \$130,000 (about four and one-half per cent of our total shipment of rails to China in the years

²American bankers participated in the Hukuang loan contract, but very little building was completed in the American section of that system up to the end of 1913. According to a British consular report, the course of the American line was still uncertain at that time.

1898-1912).²⁰ It is probable that the purchases of rolling stock for the line were worth no more than the rails.²¹ With all probable allowance for sales other than the rolling stock and rails, the total foreign supplies for the original construction with American capital can hardly have exceeded \$300,000, in contrast with total sales from this country of rails and rolling stock alone amounting to about \$11,500,000.

The striking fact in the statistics of Chinese trade by nationalities is closely similar to what has already been observed with reference to the South American countries—large sales with scant investment from the United States, heavy investment by the French with small sales, the German, Belgian and British contributing in large amount both capital and material. The large sales by the United States in spite of small lending might possibly result from supplying roads not dependent on government loans and thus imply no encroachment on the assumed advantage of the lenders for the loan-built lines; but the small sales of the heavily lending French in China, as in Argentina and Brazil, proves beyond question the failure in this instance of capital advanced for foreign railways to bestow upon the lenders' compatriots a corresponding commercial advantage. With loans of about \$27,000,000, the French contributions to this class of exportation to China amounted to only about \$651,000. Though they contributed to the Peking-Hankow line, at the lowest estimate, \$15,000,000, they exported during the six years when that road was under construction (ending in 1905) only \$83,000 of locomotives and \$237,000 of cars—a total of \$320,000 in rolling stock. This line is 818 miles long, and, on the basis of the estimate quoted in the note should require rolling stock to the value of at least \$3,200,000. The rails, it is known, were purchased in large part from the Chinese iron works at Hanyang.

It is to be noted that the nationality which has thus failed to attract purchasers in China (as also South America) is one whose manufacturers appear from other evidence to be inferior in capacity to compete in the sale of this class of commodities. The French are not well able to exclude foreign products even from their home market in

²⁰Of the 32 miles, 10 miles were double-tracked; the rails weighed 75 pounds to the yard (*Chinese Maritime Customs, Canton Report, 1904*)—making about 5,000 long tons, worth at \$26 (U. S. customs valuation at that time) \$130,000. Our total shipments of rails to China in the period amount to \$2,839,000 (more than twenty times the requirements of this line).

²¹A writer in *Engineering* (London), February 8, 1918, p. 141, estimates the cost of rolling stock for two small feeder lines in China (of about 100 miles) at \$800 Chinese per mile. At the same rate the original equipment of rolling stock for the American Canton Hankow line would come to about \$128,000 U. S., which is high enough, since prices were lower at that time than in 1918, and since further there were no passenger trains on the Canton road up to 1905 (*Chinese Maritime Customs, Canton Report, 1904*, pp. 715-6).

spite of customs duties and the ordinary advantage of home producers over foreigners.

The foregoing statistical evidence that trade fails to follow the dollar is reinforced by testimony of persons familiar with the purchase of railway material. Mr. Farrell of the U. S. Steel Corporation, (*Selling in Foreign Markets*, p. 136) was asked, "What do your agents in Paris sell?"—he answered, "One sells rails principally to French buyers who are building railways in other countries." Mr. Leo Wiener, technical secretary to the Rio Grande do Sul Railway in Brazil (*Cassier's Magazine*, June, 1911, p. 149), a British consular report (*Dip. & Cons. Repts.*, annual series, 4, 154) and a Belgian consular report (*Rec. Cons.*, 146, 1909, p. 183) explain sales of American locomotives in Brazil by their cheapness and special fitness for the railways of that country. There are similar explanations for the smaller sales of American locomotives in Argentina (*South America as an Export Field*, (Bureau of Foreign & Domestic Commerce, p. 44 and the *Belgian Rec. Cons.* 153, 1911, p. 430).

Not infrequently proponents of the doctrine that trade should follow the lead of the dollar, testify to their disappointment in practice. Mr. B. Olney Hough (*Harvard Business Review*, II, p. 321) tells of calling the attention of investment bankers to the propriety of so directing their investments as to augment their country's foreign trade; they "only shrugged their shoulders" (wise shoulders).

It would perhaps be imprudent to insist that the prevailing opinion on this matter has never been justified; but a prolonged pilgrimage from land to land under the guidance of persons professing to have witnessed this species of patriotism has made me sympathize with those sixteenth century savants who went in search of the unicorn. There is a general disagreement as to the patriot's habitat, but an almost invariable impression that he is far away. Senator McCormick, indeed, as quoted above, ventured to locate him in our midst (referring to the Brazilian railways financed with European capital, which the senator imagined came from this country); but most authorities in the United States agree that we should make inquiry in Europe, or, more specifically, in England. Thus, Mr. Hough and Mr. Iles, already quoted. Also, a representative of the United States Bureau of Foreign and Domestic Commerce in an address reported in the *New York Times*, February 27, 1926, discussing foreign loans, asserted that "it was the policy of Great Britain and other countries to make loans only on the condition that a certain amount of the money shall be spent in the lending country." The *New York Times* of March 1, 1926, commenting editorially on this address, speaks of "the old British practice of

stipulating that at least part of the funds should be spent in the country of the lender."

In England, however, we find reason to fear that our man has escaped to the continent. At any rate, the chief English discussion of the subject (C. K. Hobson, *Export of Capital*) gives no sign of knowledge of "the old British practice" but observes (p. 3) that "the goods which are required as capital abroad need not be themselves produced in the country which invests," and reports that though Great Britain "is far the most important external investor in Australia—the United States has come to figure largely as a seller of railway materials," with smaller sales from Canada, Belgium and Germany." But in the South African mining industry "the greater part of the machinery is supplied from the United Kingdom, although a large amount of the capital is owned not by British subjects, but by Frenchmen and Germans." An article in the *British Trade Journal* of April 1, 1923, confirms Hobson's account of English practice. Another English writer, Hartley Withers (*International Finance*, 132-3) says that borrowers in England are predisposed to give orders to British industry but "it has not been usual in England to make any express stipulation to the effect that the money or part of it is to be spent in the country." Mr. Withers tells us, however, where we may find such contracts: "On the continent this stipulation is usual." Again we take up the pilgrim's staff!

It is hardly necessary to inquire in France, a country from which exports of railway materials are so scant. In Germany the author of the chief work on the export of capital is Sartorius von Waltershausen, who urges a banking policy favorable to export trade, but recognizes its limited applicability and begins his chapter on "Exported capital in the service of merchandise exports and imports" by quoting from the German periodical *Export* a lament that German bankers have loaned to Mexico money which has been used to buy railway materials from American and English factories. The writer in *Export*, however, knows where the policy of patriotic foreign investment prevails. The German great banks should "adopt the American and English position that in financial operations overseas the invested capital should be at least partly employed for the products of the lending country."

The investor who insists on advantages for his countrymen is located by our American guides in England or Germany. The Britisher

²This is confirmed by Mr. Farrell's report (quoted in *Selling in Foreign Markets*, p. 133) of furnishing 54,000 tons of rails for an Australian railway (probably not built with American capital). On page 131 he has just given expression to a kindred legend in saying that neither French colonies nor "the colonies of any other country" are buying rails from this country.

says, search on the continent. The German says, hunt him in Great Britain, also in America, where already we have sought in vain.

Conclusion

From a study of the trade in railway materials to the countries of Asia and South America most frequently cited as illustrating this doctrine, it seems quite plain that (as many observers have in fact recognized) this class of merchandise has not been purchased with a prevailing regard for the nationality of manufacturers. For each nation trade has followed investment somewhat in proportion to each nation's industrial capacity. French manufacturers have not found a market even when large amounts of French capital have been placed. Manufacturers of the United States and Germany have sold in large amounts where substantially no American or German capital has been employed. Even railways financed from Great Britain—great in manufacturing as well as in foreign investment—have drawn to some degree upon the markets of other nationalities.

Investors in enterprises so hazardous and frequently unprofitable could not sacrifice their economic advantage for patriotism if they would. Borrowers have refused to grant the lenders a monopoly of supply. Proponents of this doctrine do not find for us the patriot who sacrifices his profits by preferring his manufacturing compatriots. In the United States he is generally described as European; in England, as continental; in Germany, as British or American. As André Marin, a learned physician of Venice, said some centuries ago of the unicorn; "he dwells in inaccessible places and is therefore seldom seen."²

²Requests for further information addressed to writers or speakers quoted in footnote 2 have elicited a number of courteous replies.

The British Trade Facilities act (1921) was mentioned several times. It authorizes the Treasury to guarantee the payment of loans raised within or without the United Kingdom if the proceeds are to be applied to capital undertakings or in connection with the purchase of manufactures in the United Kingdom, and if the application of the loan is calculated to promote employment in the United Kingdom. This is not in point. It has no special reference to foreign trade but applies equally to domestic and foreign investment; in fact, in nearly four years' operation the foreign loans guaranteed were only 24 per cent of the total (*Economist*, Sept. 26, 1925). It was further an emergency measure to deal with the distress following the war. (The *Economist* speaks of it, Nov. 4, 1922, as "one of the many empirical remedies for the present vast unemployment.")

A Belgian law of Mar. 4, 1919, forbidding foreign loans and credits to foreigners is mentioned as indicative that "restrictions are being placed in the way of foreign loans."

Purchases for the government railways of India are also hardly within the scope of the subject. An effort in Parliament to require these purchases to be made in England was defeated. It was explained in the House of Commons, Feb. 25, 1924, that under a resolution adopted by both houses of the Indian legislature and accepted by the government of India, these purchases are, in the interest of the Indian tax-

It is
Ameri
their
to asc

The
in the
moditi
comme

Seco
1) the
Assign
railwa
chos
contra
trade.

The
payer,
get the
Other
govern
French
France
been al
Facilit
frances
textiles
credit.
comple
comme
Bueno
tramw
in req
Then
have v
buy of
elsewh
opinio

It is not altogether easy to understand why so many persons in America and elsewhere should regret the refusal of investors to sacrifice their own interests by limiting purchases to one market. I venture to ascribe this fervent advocacy to two errors:

There is, first, the mercantilist tradition that a nation is fortunate in the extent of its export trade; that a person who expels useful commodities from the national borders is in some way more deserving of commendation than one who sells at home.

Second, it is not generally realized that (as pointed out in footnote 1) the export of capital must always consist in an exportation of goods. Assigning to that process any particular class of commodities (as railway equipment) is a sacrifice of other producers in favor of the chosen group. If that preference were stipulated in all foreign loan contracts, it would make no addition whatever to the total of export trade.

A. P. WINSTON.

The University of Texas.

payer, made in the best market, though British makers, it was reported, are able to get the business competitively.

Other transactions mentioned are loans between governments: by the British government to the Portuguese government for the purchase of British coal; by the French government to two of the French colonial administrations for purchases in France. Two British loans to Serbia and two in Greece are mentioned; I have not been able to find the sources of information cited; they suggest loans under the Trade Facilities act. A Roumanian government loan in Switzerland (forty million Swiss francs, thirty millions in Treasury bills handed to Swiss exporters as payment for textiles and other Swiss manufactures") seems to be a purchase in Switzerland on credit. All these cases are, so far as I can judge from the dates and incomplete descriptions, a product of the exceptional intervention by governments in commercial transactions in the post-war period. "A loan for the tramways in Buenos Aires about 1908" I have not been able to find, though legislation relating to tramways in that period is apparently similar to the Argentine law as to railways, in requiring competition for concessions or leases, and strict official supervision.

There has nowhere appeared a clear example of an investment in which the investors have voluntarily, without governmental compulsion or reward, bound themselves to buy only from their own nationals whatever better opportunities might appear elsewhere. That is apparently the subject in all or nearly all the expressions of opinion quoted or cited at the beginning of this paper.

A SALT FAMINE IN ECUADOR

During the latter part of 1926 there occurred in Ecuador a serious salt shortage, something which is most unusual in modern times. Students of economic history are familiar with the part that salt played in the lives of ancient and medieval peoples, and more recently in the colonial history of the United States; but with modern developments of transportation and distribution the securing of salt has ceased to be any problem to the average person.

For many years salt has been a government monopoly in Ecuador. The only salt deposits of importance in the country are near Salinas, on the Pacific Ocean, about 100 miles from Guayaquil. All salt produced must be sold to the government, which in turn sells it to dealers who retail it to the public. The importation of foreign salt is not permitted except under special conditions; and normally the local deposits are more than sufficient to supply the needs of the country.

Transportation, however, is a serious problem in Ecuador. A large part of the population is on the Andean plateau at an elevation averaging around 8000 feet. The railroad from Guayaquil to Quito is the only one connecting the coast with the interior; there are but few wagon roads; and many places are dependent on mule transportation for all of their commerce with the outside world. As a result, shipping costs even in normal times make the price of salt very high in many parts of the country. For example, in 1925 the cost of salt to the government at the mines was 92 centavos per Spanish quintal; and the freight charges alone, exclusive of all profit to the government, brought this cost up to 13.92 sucres, or approximately 3 cents a pound, at some points in the interior. As might be expected under these conditions, particularly in view of the fact that a long rainy season makes some of the roads and trails almost impassable during part of the year, there were times when interior points had difficulty in obtaining salt. The situation, however, never assumed serious proportions except locally prior to 1926.

About the middle of 1926 a heavy storm flooded and temporarily put out of commission many of the local salt deposits, and in September and October there followed a serious shortage of salt that in some parts of the country reached the point of a salt famine, which was not relieved until December, 1926.

In all of Ecuador the shortage was felt to some extent, but it was most serious in those parts farthest from the railroad. An editorial in a Quito paper summed up the situation in the following words:¹

In all the country the scarcity of salt is felt like a lash. Up to the present there never was a similar crisis; not even when the Southern Railroad² was

¹*El Día*, October 24, 1926.

²The railroad from Guayaquil to Quito.

only a project, nor after it was built when it was closed in the winter. Today there is not a servant or a countryman who does not suffer the continual necessity of waiting for one hour, or two or three hours;³ there is not an unfortunate throat that is not pleading for charity, or a person who with begging hand is not extending his pennies to the seller.

In Ibarra, near the Colombian border, salt was reported in October to be selling at 180 sucres a quintal (approximately 36 cents a pound),⁴ and according to a newspaper account⁵ "The people obtain a pound of this article as a special favor and at an unheard-of price. Ibarra is exasperated and everywhere one observes a discontent that seems to foreshadow serious and violent disturbances."

The most serious trouble occurred in Cuenca, the third largest city in the republic, located in the southern part of the country, where for a time it was impossible to secure salt at any price. A pack train bearing salt to the city, which is a considerable distance from the railroad, was attacked by Indians and one person killed and several wounded.⁶ Within the city crowds marched the streets with cries of "salt, salt" and "salt or blood," and at one time rioting broke out and a number of fatalities resulted from the clash between the inhabitants and the government troops.⁷

The salt crisis was so serious that the government sent a battalion of troops to work the deposits near Salinas,⁸ and at least once the problem was taken up in Cabinet meeting.⁹ Even in Guayaquil, which is the principal seaport of the country and close to the salt deposits, many persons had difficulty in obtaining salt, and strict regulations were laid down by the governor of the province to control its sale.¹⁰

With the reestablishment of production in the mines near Salinas and with the arrival of importations of foreign supplies, by the latter part of December, 1926, the salt shortage had come to an end.

F. W. FETTER.

Quito, Ecuador.

³During the shortage there were frequently long lines of people waiting to purchase salt.

⁴The seriousness of this can be better appreciated when one considers that the wages of common labor in the interior of Ecuador range from 10 to 20 cents a day.

⁵*El Comercio* of Quito, November 3, 1926.

⁶*El Dia* of Quito, November 3, 1926.

⁷*El Dia* of Quito, November 2, 1926; *El Telegrafo* of Guayaquil, November 7, 1926; *La Cronica* of Cuenca, November 1, 1926, republished in *El Universo* of Guayaquil, November 8, 1926; *El Universo* of Guayaquil, November 7, 1926.

⁸*El Telegrafo* of Guayaquil, October 28, 1926.

⁹*El Telegrafo* of Guayaquil, October 26, 1926.

¹⁰*El Telegrafo* of Guayaquil, October 26, 1926, and *El Comercio* of Guayaquil, October 28, 1926.

REVIEWS AND NEW BOOKS

General Works, Theory and Its History

The Theory of International Prices: History, Criticism and Restatement. By JAMES W. ANGELL. (Cambridge: Harvard University Press. 1926. Pp. xiv, 571. \$5.00.)

Three-fifths of the bulk of this volume is made up of history and criticism. There follows a moderate, modern restatement by the writer. There are also statistical appendices and of course the formidable bibliography. In both critical history and restatement the scope is limited to the general theory of international mechanisms and price relationships. Thus the disputes that hover around applied problems are avoided, and the exposition maintains a level of high serenity.

"Two elements of doctrine are necessary. One is evidently a theory that will explain the levels of general prices within any one country. The other, less easily defined, is a theory of the determinants and mechanisms of international exchange itself, and of the character of the general price relationships between countries." (Page 5.) So of necessity Professor Angell's critical history is an important reference work for the theory of national as well as international prices.

In the critical history the interest is well sustained, no easy feat; for here the doctrines of scores of writers are expounded and criticized, and often such procedure results in dragged-out dullness. But Professor Angell has the gift of selection. With clean, definitive strokes he draws his portraits. I think there are too many portraits in the gallery; but that is hardly Professor Angell's fault. That is the fault of Economics. She cherishes the lesser twigs of her family tree with altogether too great a care. But are these portraits accurate? Here we must note the criticism made by Professor Viner in reviewing this work (*Jour. Pol. Econ.*, vol. xxxiv, pp. 597-613), in which he argues that the exposition of the doctrines of Ricardo and Mill amount to misrepresentation. I am in complete agreement with Professor Viner on the Ricardo question. I don't understand how Professor Angell could arrive at his conclusions, which are that Ricardo, previous to the *Principles*, did not show himself a straightforward quantity theorist, and that he denied the doctrine which explains the adjustment of original disequilibriums in international trade in terms of resultant specie flows. Finding in this case extreme misrepresentation, one hesitates to accept the representations in other fields of which one knows nothing. But, after all, it is much more important that ghosts should be interesting than that they should be accurate, and Professor Angell makes his ghosts remarkably interesting.

The
works
of ex
this c
then t
page
whose
skip
Fran
Profe
of th
of ex
unfol
which
W
a ma
quan
of th
doct
neat
sanc
he c
eigh
indi
turn
spee
wer
him
with
hav
for
can
the
the
V
Pro
mer
of
exa
tra
cla
con
eit
to

There should be raised the question, which also applies to many other works of historical criticism, whether the national compartment system of exposition has not disadvantages that outweigh its advantages. In this case we have first the history of English thought, then the French, then the Italian, and last the German and Austrian. So we read on page 18 of Locke and reach Bodin on page 205. So we read of Hume whose *Essays* within five years were translated into French, but have to skip one hundred and eighty pages before we read of his followers in France. Perhaps it is the lapse of those pages which has allowed Professor Angell to quote the paraphrase of a French follower instead of the original in Hume's *Essays*. Of course there is continuous use of cross-references; but these cannot give a sense of the general unfolding and natural development of thought in western civilization which spreads from nation to nation in a few years.

With no such large unit as a background, progress becomes too much a matter of individual excellence. Locke, a thorough-going national quantity theorist, seemed to stumble when dealing with the price effects of the balance of trade, which Hume seemed to clear up with the doctrines of relative price levels and specie flows. Now Hume was the neater thinker. But would it have been possible for him to write the same things at the end of the seventeenth century; or, if he had, would he ever have gained the victory that he won in the middle of the eighteenth? For, at the earlier time, the concept of hoards, both individual and national, still obsessed thinkers. A favorable balance turned into an increased hoard raises no prices, calls for no outward specie flow. But by the middle of the eighteenth century those concepts were only relics of the past, relics cherished, rather curiously, by Hume himself, who wrote in favor of family plate and national hoards, and with extravagant fears of the newly existing debt systems. If he could have had his way he would have made inapplicable the economic doctrine for which he is famous. To sum up: the larger spirit of the times cannot be compressed within national histories. For the lack of it they become mere national chronicles. The national chronicles of the theory of international prices are a curious irony.

With 360 pages behind him, symbols of enormous critical reading, Professor Angell proceeds to his statement of the theory. His restatement is a flat denial of the crude anti-classical criticisms, a declaration of general allegiance to the classical explanation. And yet, when examined in detail, this general allegiance permits of a considerable transformation both of point of view and machinery in use. The classical attempt to find real significance in national barter and comparative labor cost is viewed unfavorably by Professor Angell as either inexact or fallacious. So he confines his explanation narrowly to prices and the mechanism of prices. In the mechanism of prices the

direct chain—of foreign exchange to bank deposits, — bank deposits to prices—is given the primary place, though specie flow is given a subordinate one.

Here I think the difference between Professor Angell and the classical school is partly a matter of theory but partly also the difference between a theoretic explanation with exact premises and a realistic explanation describing actual business processes. Suppose a member of the classical school agreed with Professor Angell in theory, but assumed exact premises, including a money and banking system working with no leeway, then a rise of prices would have to be accompanied with a simultaneous and definite flow of specie, which could therefore hardly be relegated to a subordinate place. But with national banking systems having considerable leeway, the flow of specie could be delayed, as seems to have been the case in Canada, and also, I should think, would be quite indefinite in its amount. The background for the theoretic differences, on the other hand, is mainly the change in the theory of price determination that has taken place in the last hundred years. National barter, a gold flow that is tied to no definite prices and therefore becomes the source in itself of a new level of prices—of course such a form of explanation is quite out of date and Professor Angell's direct method very superior.

How did it become out of date? That raises the question of the uses of critical histories in the separate departments of economics. If we believed that thought in the separate departments evolved mainly within the limits of those departments, then a specialized study of that evolution, thus limited, would be true history. But the reason why the classical theory of international prices seems to us crude is the progress we have made in the theory of the competitive price. The theory of the competitive price is the main trunk of economic thinking. As that main trunk develops, new and higher branches of the theory of international prices should grow out. The new statement of the theory of international prices should proceed from the new statement of the theory of the competitive price, not from the old statement of the theory of international prices.

In the new statement there should be more care shown than there has been in the past in distinguishing the consequences of the purchase and sale of securities from those of the purchase and sale of commodities. The theory in the past started with the purchase and sale of commodities and assumed rather blindly that the purchase and sale of securities could be treated in the same way. From the point of view of machinery perhaps they could. But the consequences of the purchase and sale of commodities produce international prices only for the goods that enter into international commerce. Whereas the consequences of the purchase and sale of securities make a common pure rate of interest

for the v
between
of effici
rate of
prices h
internat
the fam
commo
and lab

Mas

Karl M

(1

12

This

essays

Theor

"Mar

in the

misun

For

a pro

march

decla

econo

of the

those

In

econo

activ

Profe

Thou

their

deter

bring

thoro

incom

comp

of th

begin

easil

side.

T

agai

for the world. But interest is a matter of time, of quantities, of prices, between anterior and posterior goods. If we call the first two, factors of efficiency, then, given the factors of efficiency and given the rate of interest, we derive the spread of prices; but, given some common prices between nations, we derive all prices, both those that enter into international commerce and those that do not. Of course this is on the familiar assumptions of no frictions in the purchase and sale of commodities and securities but frictions in the movement of technique and labor.

O. INGRAHAM.

Massachusetts Institute of Technology.

Karl Marx's Capital; An Introductory Essay. By A. D. LINDSAY.
(London and New York: Oxford University Press. 1925. Pp.
128. 2s. 6d., \$1.00.)

This interesting and important little book is a collection of five essays on "Marx and Hegel," "Economic Determinism," "The Labour Theory of Value," "Surplus Value and the Collective Labourer," and "Marx and Rousseau," in which the author presents the views of Marx in their historical setting, for lack of which there has been much misunderstanding and misdirected criticism.

For example, Marx's inversion of the Hegelian dialectic was in part a protest against an extreme idealism which regarded the state as the march of God on earth; whereas Marx, going to the opposite extreme, declared that it was but the instrument of class domination. Similarly, economic determinism was a protest against the complacent optimism of the Smithian economists and the no less complacent pessimism of those who followed Malthus and Ricardo.

In fact, Marx's whole life was a protest against the political and economic system of his day, although his call to action and his own activities were inconsistent with his philosophical determinism. Professor Lindsay says:

Though it is hard to set a limit to men's power of holding a creed which their actions belie, the truth is that the real source of this metaphysical determinism in Marx, this assurance that economic laws are inevitably bringing about socialism, is not scientific but religious. . . . A belief in thorough-going determinism and a vigorous call to action are logically incompatible, but if the call to action comes first, they are psychologically compatible. If you believe in the inevitableness of economic laws, as some of the individualist economists did, you will preach inaction; but if you begin, like Marx, with a passionate sense of the need to act, you will be easily persuaded that the economic laws are inevitably working on your side.

The labor theory of value, also, is to be understood as a protest against capitalism and the individualist economists, from whose arsenal

the weapon was taken, and to which they had no effective reply. With Locke, the theory was a defense of private property based on natural rights; with Ricardo and his followers it was both an explanation of "natural value" and a defense of competitive prices. True, Ricardo was primarily interested in a scientific explanation of market prices, but the "fervid religiosity" of his Scottish disciples turned the scientific inquiry into a claim of right. This double character of the labor theory must be kept in mind if one would understand the position of the orthodox economists and the attack by Marx who, despite his disclaimer of morality, was full of moral indignation and inspired by a passion for justice, which colored all his thinking.

In this connection Professor Lindsay points out a striking analogy between the philosophy of Rousseau and that of Marx. With Rousseau the theory of natural right is superseded by the theory that only in society can men have any rights at all; and yet it is only the drive of the individual's demand for justice embodied in the theory of natural right that enable him to get behind the accepted assumptions of existing society. In the same way, although Marx's teaching of the social nature of production is inconsistent with the individualistic labor theory of value and has superseded it, only the drive of the demand for justice, which the theory embodies, enables him to get behind the assumptions of existing economic structure and see what an economic structure of society might be. Thus both of these revolutionary theories were found wanting and were discarded, though not before they had done their work.

Professor Lindsay's chapter on surplus value is more conventional than the rest of the book, but here also he brings some neglected points into bold relief and shows that fair and profitable criticism of Marx must be closely related to the thought and social conditions of his day.

J. E. LEROSIGNOL.

University of Nebraska.

Angewandte Lohntheorie. Untersuchungen über die Wirtschaftlichen Grundlagen der Sozialpolitik. By RICHARD STRIGL. Wiener Staatswissenschaftliche Studien, edited by FRIEDRICH WIESER, HANS MAYER and HANS Kelsen, new series, vol. IX. (Vienna: Franz Deuticke, 1926. Pp. viii, 170.)

The task which the author has set himself is to show those economic relations within the field of "Sozialpolitik" which can be made comprehensible by means of the theory of wages. The *applied* theory of wages is an appropriate title because it is a study which in some respects goes beyond the realm of pure economic theory and deals with one of the many borderlands that open themselves to the application of economic theory. To this kind of economic research new and fertile fields lie

open;
Dr. S.
make
the en
misch
Strigl
proble
work.
now c
his pr
The
metho
chapt
with
by co
forms
specia
latter
proble
starti
doctr
suppl
great
prenc
Mr
but h
deter
wage
the m
the m
impo
larly
occup
searc
artifi
and t
facto
TH
"In
"insti
no ne
assum
This
been

open; and yet the pioneer work upon them may be somewhat hazardous. Dr. Strigl cautiously tries to protect himself from such perils and to make his structure of argument so strong and firm that his holdings in the end become almost impregnable. In an earlier book¹ (*Die ökonomischen Kategorien und die Organisation der Wirtschaft*, 1923) Dr. Strigl has already and more broadly considered the methodological problems and theorems of economics to which he recurs in the present work. He is thus clearly aware of the *kind* of questions which he is now compelled to face, and his earlier experience largely determines his present mode of procedure.

The first chapter of the present book gives a short account of the method to be followed in the course of his inquiry. The next two chapters discuss the determination of wage-rates and deal separately with the free market and with those markets which are characterized by collective bargaining, that is to say, by monopolistic or monopoloid forms of prices. In the view of Mr. Strigl, the theory of wages is a special case of the general theory of prices so that the principles of the latter as well as its procedure should be applied to this particular problem. Böhm-Bawerk's and Wieser's treatment of the topic give the starting point and the general scheme. Under the influence of Wieser's doctrine he carefully analyzes the "stratification" of demand and supply of labor and clarifies several obscure complexities. This concept greatly helps to determine the relative powers of workers and entrepreneurs which continuously fluctuate even within a single industry.

Mr. Strigl's theory of wages is a theory of marginal productivity, but he does not deal with the question of how the marginal product is determined; his interest centers in the formation of prices in different wage-markets. Under free competition he concedes that wages equal the marginal product; but the study of collective bargaining receives the major share of attention in his book on account of the practical importance of the present organization of labor and capital, particularly in Europe. A theoretical analysis of collective bargaining occupies the long third chapter and is probably the most complete and searching study yet attempted in this difficult field. The relations of artificially raised or lowered wage-levels upon the prices of products and the volume of production and the various consequences to the other factors of production are carefully investigated.

The other chapters of the book contain discussions of unemployment

¹In it Dr. Strigl establishes his opinions on several problems which can be called "institutionalist"; and though he recognizes the nature of these problems, he sees no need as an adherent of the Austrian School of "pure theory" to discard any assumptions or conclusions of structural significance to the edifice of economic theory. This book should not be neglected in a discussion of those problems which have been resurrected by questions of the institutionalists about the "essence" of economics.

and of the qualifications of the workers, and an interpretation of the economic significance of great differences between the wages of skilled and unskilled labor. They deal further with the regulation of working conditions (*e. g.* the eight-hour-day, etc.) as an influence on wages, and they include an excursus upon the relations of entrepreneur's profits and costs, which is also, of course, a treatment of entrepreneur's gains and wages. The seventh chapter deserves special mention, because it deals with the shifting of social burdens—in this case social insurance—and extends the theory of shifting to a new field, a thorough exposition of which, however, would be beyond the scope of this book.

An analysis of Mr. Strigl's theories is impossible in a mere review, and these lines have no further purpose than to indicate the content of his book. The book is written in simple and attractive style, and discusses many burning questions of social controversy in comprehensive and judicial manner. Dr. Strigl combines the work of Privatdozent at the University of Vienna with the duties and responsibilities of executive secretary of the "Industrielle Bezirkskommission," an important governmental institution which regulates unemployment payments and working conditions and possesses power of arbitration in industrial disputes. He, therefore, brings to his task a happy union of theoretical training and wide practical experience.

OSCAR MORGENSTERN.

Cambridge, Mass.

NEW BOOKS

BECKER, C., CLARK, J. M. and DODD, W. E. *The Spirit of '76 and other essays.* (Washington: Robert Brookings Grad. School. 1927. Pp. 135.)

Three lectures, delivered at the Robert Brookings Graduate School of Economics and Government, in commemoration of the one hundred fiftieth anniversary of the publication of *The Wealth of Nations* and *The Declaration of Independence*. The second essay is entitled "Adam Smith and the Spirit of '76," by Professor J. M. Clark.

BECKERATH, E. von and others, editors. *List-Studien. Untersuchungen zur Geschichte der Staatswissenschaften.* (Jena: Fischer. 1927.)

BERTOLINO, A. *La politica economica di Fenelon e il pensiero politico ed economico del suo tempo.* (Siena: Circolo Giuridico della R. Università. 1927. Pp. 79.)

BRODNITZ, G. editor. *Handbuch der Wirtschaftsgeschichte.* (Jena: Fischer. 1927.)

BUKHARIN, N. *The economic theory of the leisure class.* (New York: Internat. Pubs. 1927. Pp. 220. \$2.50.)

DIEHL, K., editor. *Grundrisse zum Studium der Nationalökonomie.* (Jena: Fischer. 1927.)

———. *Theoretische Nationalökonomie.* Band III. *Die Lehre von der Zirkulation. Wert und Preis. Geld und Kredit.* (Jena: Fischer. 1927. Pp. ix, 602. Rmk. 23.)

FANNO, M.
Univers

FAY, C. J.
(New

FÖLDES,
(Jena:

GRANDIN
économi
300 fr

GREGORY
honou
10s. 6

GUNN,
Pp. 2

KROMPI
Müns
Quell

LAMPE,
theori
130.

LOUZO
175.

McKE
1927

MAYER
Ges
Fisc

MAYER
Pp.

MOME
Fis

OPPE
Kr
xvi

PASSO
ne
8.5

ROCH
19

SOM
Fi

WEA
P

- FANNO, M. *Contributo alla teoria economica dei Beni Sucedanei*. (Milan: Università Bocconi Ed. 1926. Pp. 141.)
- FAY, C. R. *Elements of economics. A textbook for secondary schools*. (New York: Macmillan. 1927. Pp. xviii, 631.)
- FÖLDES, B. *Volkswirtschaftliche und sozialpolitische Untersuchungen*. (Jena: Fischer. 1927. Pp. 276.)
- GRANDIN, A. *Bibliographie générale des sciences juridiques, politiques, économiques, et sociales, 1800-1926*. (Paris: Sirey. 1926. Pp. 845. 300 fr.)
- GREGORY, T. E. and DALTON, H., editors. *London essays in economics: in honour of Edwin Cannan*. (London: Routledge. 1927. Pp. x, 376. 10s. 6d.)
- GUNN, J. A. *Livelihood*. (Melbourne: Robertson & Mullens. 1927. Pp. 232. 10s. 6d.)
- KROMPHARDT, W. *Die Systemidee im Aufbau der Casselschen Theorie. Münsterer wirtschafts- u. sozialwiss. Abhandlgn., Heft 4*. (Leipzig: Quelle & Meyer. 1927. Pp. viii, 101.)
- LAMPE, A. *Notstandsarbeiten oder Lohnabbau? Kritik der Wirtschaftstheorie an der Arbeitslosenpolitik*. (Jena: Fischer. 1927. Pp. viii, 130. Rmk. 6.)
- LOUZON, R. *L'économie politique*. (Paris: Lib. du Travail. 1927. Pp. 175. 6 fr.)
- McKERROW, J. C. *Economics for Nicodemus*. (London: Longmans Green. 1927. 2s.)
- MAYER, G. *Die Freihandelslehre in Deutschland. Ein Beitrag zur Gesellschaftslehre des ökonomischen Liberalismus. Band IV*. (Jena: Fischer. 1927. Rmk. 6.)
- MAYER, J. *The seven seals of science*. (New York: Century. 1927. Pp. xiv, 444. \$3.50.)
- MOMBERT, P. *Geschichte der Nationalökonomie. Band II*. (Jena: Fischer. 1927. Rmk. 27.)
- OPPENHEIMER, F. *David Ricardos Grundrententheorie. Darstellung und Kritik. Zweite neu eingeleitete Auflage*. (Jena: Fischer. 1927. Pp. xvi, 255. Rmk. 10.)
- PASSOW, R. *Kapitalismus. Eine begrifflich-terminologische Studie. Zweite neu durchgesehene Auflage*. (Jena: Fischer. 1927. Pp. v, 136. Rmk. 8.50.)
- ROCHE-AGUSSOL. *Tarde et l'économie psychologique*. (Paris: Rivière. 1926. 12 fr.)
- SOMMER, A. *Friedrich Lists System der politischen Okonomie*. (Jena: Fischer. Pp. xii, 242. 1927. M. 8.)
- WEATHERLY, U. G. *Social progress*. (Philadelphia: Lippincott. 1926. Pp. xviii, 388.)

Writing under a title which affords a place for nearly any comment on any subject of human interest, Professor Weatherly has assembled an impressive collection of bits of wisdom from the vast literature of social

discussion and from his own fertile mind. He averages something like two quotations to a page, with a comparable number of quotable observations of his own. One had thought such books out of fashion; its challenge to read leisurely and chew and digest is in striking contrast with the journalese typical of current work in its field.

The great value of the book is in this catholicity and suggestiveness, developed with enormous learning. The author makes little attempt to prove a position, or even to define issues sharply. At one point in particular the reviewer, at least, would wish for a clearer drawing of distinctions,—namely, in regard to the relation between the descriptive or scientific and the hortatory or practical point of view. Only once, at the beginning of the concluding chapter, is the subject broached; and then the conflict is by no means pushed home. In other connections also a more clean-cut analysis would be useful. Throughout the work the author endorses the biological side as against the cultural, heredity as against environment, in the explanation of human qualities. But he never recognizes that a trait may be congenital and physically based without being hereditary. Surely the large role of individual variation or accident in this connection is one of the most impressive aspects of the phenomena. On page 227 he emphasizes that, "as there are peoples who are exceptionally fertile in innovation, so there are *periods* . . .," without seeming to see that such variation in time is a powerful argument against the biological interpretation. Again, on page 258 he lists the biological view of sociology as an argument against the great-man theory of history; but in the following pages he aligns himself with that theory (esp. p. 279).

In spite of occasional inconsistencies, however, it is a brilliant and tremendously educative book.

FRANK H. KNIGHT.

WEIGMANN, H. *Kritischer Beitrag zur Theorie des internationalen Handels*. (Jena: Fischer. 1926. Pp. vii, 84. Rm. 4.)

This brochure, written primarily for German consumption, examines problems with which English and American students have not especially concerned themselves. It is not so much a contribution to the theory of international trade, as a discussion of the theory of that theory.

The author points out the familiar inconsistency between the classical theory of international trade and the classical theory of (domestic) value at large. The latter ran largely in terms of labor costs, of human efforts, whereas the former is essentially a doctrine of prices, of price mechanisms and price determination. As between the "international" and the "domestic" parts of the classical value theory, the author is inclined to prefer the former as being more realistic. It leads logically, however, into the general utility theory of value, and in this last body of thought he finds the real solution of the whole problem. The utility theory of value makes it possible to do away with the artificial classical distinction between domestic and international trade, and permits the substitution of an explanation running in terms of varying degrees of competition between different markets. The graphic apparatus worked out by the mathematical writers for dealing with these problems is then presented, though summarily.

The author's acquaintance with other literatures than the German is largely confined to the familiar general treatises. His chief concern is

with certain large—and correspondingly nebulous—problems in the proper method of approach, and he does not seem to reach definite results of tangible value. A study of more concretely formulated problems might well have brought him richer fruits.

JAMES W. ANGELL.

Economic History and Geography

Mercantilism and the East India Trade. By P. J. THOMAS. (London: P. S. King & Son. 1926. Pp. xvii, 176. 8s. 6d.)

This monograph throws much new light upon an old subject, an achievement that is the more surprising because intensive work on manuscripts and in the larger collections of pamphlets has failed to reveal any new materials of primary importance. Considerable new material has indeed been utilized; and it would seem that a comprehensive survey has been made of the resources of the Record Office, the India Office, the British Museum, the Goldsmith's Library, and the Bodleian. Many new details are forthcoming; and generous documentation is provided for matters that were previously known in a rather sketchy fashion.

It is a pity that no systematic list is given of the primary printed sources with some indication of the relation of the printed to the manuscript sources. The list of pamphlets would be more helpful, if indication were given of reprints. Without such information it is not easy to appraise the real significance of the great London collections.

The volume covers the period 1600-1720. The East India trade became a political problem almost at once. In the early years large remittances of bullion to the Orient offended the sensibilities of contemporaries. The introduction of Indian textiles soon gave added cause for concern, as the new fashions were a source of trouble to the silk and woollen industries. Attacks were launched against the trade of the company. The prohibition of the Indian goods was demanded. Several bills were lost; but prohibitory statutes were passed in 1700 and in 1720.

Much new detail is given with reference to the rise of the trade in Indian textiles, the discontent of the English industrialists, and the development of calico printing after 1700. There are two contributions of outstanding importance. Mr. Thomas shows that the defense of the East India trade resulted in a steady development of the analysis of foreign trade, which culminated in the enunciation of a doctrine of comparative advantage. He also shows that the free trade policy was only adventitiously connected with the Tory party. The India Company group were mostly Tories; but they did not dominate the party, and the most important single pamphlet of the

late period seems to have been written by Henry Martyn, a Whig journalist. Mr. Thomas's case rests upon a new interpretation of the pamphlet *Considerations upon the East India Trade*, and upon further evidence to support McCulloch's surmise that Henry Martyn and not Dudley North was the author of the anonymous pamphlet. The question of authorship is hardly vital; for a careful study of the period makes it evident enough that commercial policy was not a party issue in any legitimate sense of the word. If Martyn were really the author of the pamphlet, it is merely contributory evidence. But it is a matter of genuine significance to find that doctrines of first-class importance have rested in obscurity because of the inadequacy of literary statement and some caprice of fortune which made it possible for the pamphlet to escape thorough study. McCulloch reprinted it; Marshall had it in his hands. For years it has been attributed to Sir Dudley North, though it contains references to incidents which happened after North's death. It has been treated with scant attention. It contains, however, an extended discussion (chapters 10, 11, 12) of the influence of foreign trade on domestic manufactures which is certainly an expression of the doctrine of comparative advantage. The exposition is not a model of style; and elsewhere expressions occur which smack strongly of mercantilism. There is enough conformity to the general pattern of the older literature to account for the neglect of the key passages. Whatever place it may deserve in the history of economic thought, it is clearly the final word in the defense of the East India Company and its trade. Mr. Thomas deserves great credit for his discovery and for the effective presentation of this long, complex episode in the history of commerce.

ABBOTT PAYSON USHER.

Harvard University.

Evolution de l'Organisation Scientifique du Travail à propos de Congrès International de Bruxelles. By C. DE FRÉMINVILLE. (Paris: Revue de Métallurgie, Vol. XXIII. April and May, 1926. Pp. 199-208, 269-276.)

Among the leading west European industrialists is M. Charles de Fréminville, the president of the Conférence de l'Organisation Française and the consultant of Le Creusot, the largest steel works in France. Throughout his seventy years he has been connected with the French iron and steel industry and has watched its growth from the small forge period. His point of view is historical; and his approach to modern industrial problems is that of the scholar as well as the practical engineer. Though probably no one has done more to stimulate the application of the management methods of Taylor and Fayol to French industry, he has made also an interesting contribution to the history of

1927]

econo

Perron

As

in whi

by wo

respon

factur

accor

young

two m

diffère

and D

en No

econo

collect

sevent

public

1755.

Laigle

practi

unmist

l'aut

mémoi

article

The

staten

applic

Ces de

voient

et fero

qui so

diffère

change

M.

classi

princi

Perron

of lab

'C. de

de Con

269-276.

'Desc

'de F

cepend

sans en

economic thought in a recent study of several engineers, especially Perronet.¹

As early as 1717 l'Académie des Sciences drew up a questionnaire, in which there was a demand for sketches showing the attitudes taken by workmen during their work. Various *mémoires* were prepared in response to the request, using as the basis for investigation the manufacture of pins at Laigle, "les plus renommées du royaume;" but none, according to M. de Fréminville were in any sense equal to those of a young engineer from Alençon by the name of Perronet who published two memoirs: *Explication de la façon dont on réduit le fil de lait on à différentes grosseurs, dans la ville de Laigle, en Normandie* (1739) and *Description de la façon dont on fabrique les épingles à Laigle, en Normandie* (1740). Unfortunately for the fame of Perronet in economic history the publication of his *mémoires* by l'Académie in a collection of studies² made by its members since the end of the seventeenth century which was begun in 1761, was preceded by the publication of *La Grande Encyclopédie* of Diderot and d'Alembert in 1755. In it there was a description of the manufacture of pins at Laigle with sketches by a M. Delaire, a learned philosopher with no practical experience, which according to M. de Fréminville was unmistakably based on Perronet's earlier studies "sans en nommer l'auteur qui était alors inconnu." In 1760 Perronet sent his two *mémoires* to Diderot who published them both *in extenso* following the article of M. Delaire in the second edition of *l'Encyclopédie* (1783).³

These articles were preceded in *l'Encyclopédie* with the following statement, showing that the chief interest in them at that time was in the application of the principle of the division of labor:

Ces deux descriptions faites avec soin par deux excellents physiciens qui voient bien et raisonnent ce qu'ils voient, doivent tourner au profit de l'art et feront sans doute excuser les répétitions nécessaires des mêmes procédés, qui sont d'ailleurs présentés dans un ordre et avec des développements différents que nous ne nous sommes pas cru en droit d'altérer ou de changer.

M. de Fréminville feels that there is little doubt that Adam Smith's classic description of the manufacture of pins as an illustration of the principle of the division of labor was based on these two studies of Perronet. Smith had, of course, developed his theory of the division of labor in his Glasgow lectures, which was based on de Mandeville's

¹C. de Fréminville, "Evolution de l'Organisation Scientifique du Travail à propos de Congrès International de Bruxelles," *Revue de Métallurgie*, XXIII, 199-208, 269-276, Avril et Mai, 1926.

²*Description des Arts et Métiers de Messieurs de l'Académie.*

³de Fréminville, *ibid.*, p. 201. "La comparaison des textes des deux éditions montre cependant que la première avait fait de larges emprunts au mémoire de Perronet sans en nommer l'auteur qui était alors inconnu."

Fable of the Bees; but, instead of using de Mandeville's examples from the production of clocks and watches, he mentions the manufacture of pins as divided into eighteen operations. As Smith had reviewed at considerable length *l'Encyclopédie* in his letter in the second number of the *Edinburgh Review*, published in January, 1756, there is every reason to suppose that he had read M. Delaire's article on the manufacture of pins and thought the illustration more up to date.* It is quite possible, moreover, that later when he was in Paris consorting with the physiocrats, he might have learned of the two manuscripts of Perronet which were then in Diderot's hands, as the question of the division of labor seems to have been a matter of interest according to the statement quoted above. In *The Wealth of Nations*, Smith speaks of the trade of pin maker as "one in which the division of labour has been very often taken notice of;" and, though he claims to have visited a "small manufactory of this kind where only ten men were employed," he seems familiar with studies of "some manufactories" where eighteen distinct operations were performed by different workers. How responsible the latter were for his selection of the pin industry as an example of the advantages of the division of labor is a question. But at least there are now records of two excellent studies on the division of labor in the manufacture of pins thirty-six years before his classic example appeared.

Perronet's claim to an important place in the history of scientific management is perhaps more easily established, as he became a famous builder of bridges and founded the *Ecole des Ponts et Chaussées* de France, the predecessor of the *Ecole Polytechnique*. M. de Fréminville describes his method in the two memoirs as follows:

Il s'attache au prix de revient, qu'il note pour chaque opération élémentaire, tout en observant la façon dont le travail humain est utilisé, la mesure dans laquelle la production est limitée par la fatigue, etc.

Besides these two studies, many of his plans have been preserved in *Les Oeuvres de Perronet* (1788) which contain careful detailed studies of elementary operations, scientific coördination of the different tasks and wage studies based on the work performance which would have delighted Taylor. Furthermore, to quote again from M. de Fréminville, "... il est impossible d'avoir poussé plus loin qu'il ne l'a fait l'art de prévoir."⁹ All his plans were completed in the minutest detail before any work was commenced, as for instance the bridge of Louis XV which it took five years to construct.

*Cannan in his edition of *The Wealth of Nations* also expresses the opinion that Adam Smith was doubtless familiar with the Delaire article.

⁹de Fréminville, *ibid.*, p. 201.

The
the me
"Speci
Par. 1
done b
An equ
day an
out of
rise of
will th
drain p
one-fo
Par. 1
turns o
there v
the tur
Par. 1
carried
by the
Th
possib
Smith
unkno

Mo

ALEX
the
Con

ANDE
don
Yo

BAUD
De

BEAR
Th
Ma

the
the
tut
the
is l
Th
his

*Les
writer

The following quotations from *Les Oeuvres de Perronet* illustrate the method as well as the resourcefulness of this scientist:

"Specifications for the construction of the bridge Louis XVI":

Par. 137: The work of each chaplet (of the pumps for draining) will be done by twelve laborers, four of whom will work together at their winches. An equal number will relieve them every two hours without discontinuance, day and night, so that the work of each man will be reduced to eight hours out of twenty-four. Only three men will be needed on each relay when the rise of the river is only two feet above the low water mark because the water will then be four feet less in depth than when it comes from the higher drain pipe at the head of the chaplet which will make a diminution of nearly one-fourth of the depth of the column of water from the whole chaplet.

Par. 138: The workmen employed at the pumps will be paid for so many turns of the winch and not by the day as is the custom, and for this purpose, there will be placed at the head of each chaplet a suitable machine to count the turns of the winch according to a model which will be given.

Par. 145: Enough pile drivers will be employed so that the work can be carried on night and day without interruption. The workmen will be paid by the piece.

Thus the rediscovery of Perronet by M. de Fréminville adds a bit of possible evidence with regard to the sources of material used by Adam Smith and at the same time gives to "scientific management" a hitherto unknown alien ancestor.

ETHEL BARBARA DIETRICH.

Mount Holyoke College.

NEW BOOKS

ALEXANDER, M. W. *The changing environment of American industry and the National Industrial Conference Board.* (New York: Nat. Industrial Conf. Board. 1927. Pp. 56.)

ANDERSON, B. M., JR. *The relation of international debt payments to domestic purchasing power.* Chase Econ. Bull., vol. VII, no. 2. (New York: Chase National Bank. 1927. Pp. 20.)

BAUDHUIN, F. *La structure économique de la Belgique.* (Louvain: E. Desharax. 1926. Pp. 238.)

BEARD, C. A. and BEARD, M. R. *The rise of American civilization.* Vol. I. *The agricultural era.* Vol. II. *The industrial era.* (New York: Macmillan. 1927. Pp. 824, 828. \$12.50.)

These attractively printed volumes are more completely described by their title than is commonly the case: they are concerned precisely with the "civilization" of our United States,—with the spirit back of the institutions of government and social life rather than the institutions themselves or their history in the formal sense of the word. Presentation is historical, because this civilization is conceived as a historical product. There is much in these volumes of intimate concern to economists and to historians, though no doubt the economist will feel that they contain

**Les Oeuvres de Perronet* (1788) quoted by de Fréminville and translated by the writer.

little economics and some historians will feel that they contain little history.

The authors are clearly apprehensive of the influences of "property" and "capitalism" upon our culture; and they hardly share the optimism of many that machinery can solve all problems,—social as well as physical. Their discontents are noble discontents, even if we may not share them all ourselves; and their concern for the immediate future can hardly fail to secure sympathy from the thoughtful public. These volumes will be of genuine interest to a wide circle: both to those who have already given much attention to the "state of the nation" and to those who in their past have not yet done so.

ABBOTT PAYSON USHER.

BELOW, G. VON. *Probleme der Wirtschaftsgeschichte*. (Tübingen: Mohr. 1926. Mk. 18.)

BENITEZ, C. *History of the Philippines: economic, social, political*. (Boston: Ginn. 1926.)

BOGART, E. L. and LANDON, C. E. *Modern industry*. (New York: Longmans Green. 1927. Pp. x, 593. \$3.75.)

BRINKMANN, C. *Die Aristokratie im kapitalistischen Zeitalter: Grundriss der Nationalökonomik*. Abt. IX, Teil I. (Tübingen: Laupp. 1926.)

BRUCE, P. A. *Social life in Virginia in the seventeenth century*. Second edition, revised and enlarged. (Lynchburg, Va.: J. P. Bell Co. 1927. Pp. 275. \$2.50.)

BURROUGHS, W. G. *The geography of the Kentucky Knobs: a study of the influence of geology and physiography upon the industry, commerce and life of the people*. Series 6, vol. XIX. (Frankfort: Ky. Geological Survey. 1926. Pp. 294.)

COLBY, C. C. *Source book for the economic geography of North America*. Third edition. (Chicago: Univ. of Chicago Press. 1926. Pp. 571. \$3.)

EVANS, H. C., JR. *Chile and its relations with the U. S.* (Durham: Duke Univ. Press. 1927. Pp. x, 243. \$2.50.)

The author of this historical study is professor of history in the University of Florida.

FELS, LE COMTE DE. *Les richesses de l'état français*. (Paris: Fayard. 1927. Pp. 320.)

FONTAINE, A. *French industry during the war*. Carnegie Endow. for Internat. Peace, Div. of Econ. and History, Econ. and Social History of the World War. (New Haven: Yale Univ. Press. London: H. Milford, Oxford Univ. Press. 1927. Pp. xxix, 477.)

FRIEDRICH, E. *Spezielle Wirtschaftsgeographie*. (Berlin: De Gruyter. 1926. Mk. 23.)

GILLESPIE, F. E. *Labor and politics in England, 1850-1867*. (Durham: Duke Univ. Press. 1927. Pp. vi, 319.)

This study is concerned with the constructive and persistent influence upon British politics of working class agitation in the years between the decline of the Chartist movement and the passage of the second Reform bill. So much of the earlier writing has been dominated by the biographies

of middle class and aristocratic leaders that it is seldom realized to what an extent their acts and policies were conditioned by the state of public opinion among the working class. The reconstruction of the working class position has been carried out by the author with sympathy and a delicate appreciation of the relation of agitation outside Parliament to the manoeuvring of leaders and parties within. Her work is based upon careful utilization of the manuscript collected by Howell and of the periodical and pamphlet literature of the radical and workingmen's press. None of these sources have hitherto been used with such care. It has been possible to show that Bright and his fellow radicals were dependent upon the working class agitation, though they would not accept the working class program. Furthermore, at the critical juncture in 1866-7, the pressure of public opinion upon Parliament was almost entirely the result of the agitation by the working class. This influence was intensified by the depression; and, at the last, the leaders were carried beyond any program that they could or would have adopted on their own initiative. With an eye to the future, both parties made a great show of sympathy for the reform—after they realized that it was inevitable.

In the appraisal of the factors involved in these events, the author has shown excellent judgment and has avoided the temptation to exaggerate the importance of the activities of her chief characters. Her work is a considerable contribution to the history of the period, whether one's interest lies in the field of politics or social movements. It should be especially welcome to American readers because of the insight into the actual working of Parliament and British parties.

ABBOTT PAYSON USHER.

GIUSTINIANI, G. *Le commerce et l'industrie devant la dépréciation et la stabilisation monétaire. L'expérience allemande.* (Paris: Felix Alcan. 1927. Pp. xi, 211.)

GRAND, E. D. *Bibliographie financière d'après guerre. Liste des traités français et étrangers de banque, change, monnaies, finances, parus de 1918 à 1926.* (Paris: Lib. Boyveau & Chevillet, 22 rue de la Banque. 1926. Pp. 64. 18.)

GRANDIN, A. *Bibliographie générale des sciences juridiques, politiques, économiques et sociales de 1800 à 1925-1926.* Vols. I and II. (Paris: Soc. Anon. du Recueil Sirey, 22 rue Soufflot. 1927. Pp. 784, 854.)

HART, A. B. and SCHUYLER, W. M., editors. *The American year book: a record of events and progress for the year 1926.* (New York: Macmillan. 1927. Pp. xvii, 1178. \$7.50.)

JEFFERSON, M. *Peopling the Argentina Pampa.* American Geographical Society research series no. 16. (New York: American Geographical Society. 1926. Pp. viii, 211. \$4.)

An interesting descriptive and historical narrative based on a journey in 1918. The author had previously lived in the Argentine interior for five years, 1884-1889. The picture is that of a "vigorous infant agricultural society born in the midst of an ancient cattle culture." There are many illustrations, and several maps. Students of immigration problems will find much source material.

KHAN-EL-CHEIBANY, A. *La situation administrative et économique du Soudan Anglo-Egyptien.* (Paris: Ernest Sagot. 1927. Pp. 152.)

KRAMER, S. *The English craft guilds: studies in their progress and decline.* (New York: Columbia Univ. Press. 1927. Pp. 239. \$4.50.)

LANGTON, W. A., editor. *Early days in Upper Canada: letters of John Langton from the backwoods of Upper Canada and the Audit Office of the Province of Canada.* (Toronto: Macmillan. 1927.)

An excellent description of pioneering in the Peterborough district in 1833 and later years, and a valuable discussion of government financial organization from 1855 to 1878.

LEWIS, E., editor. *Overseas official publications.* Vol. I, no. 1. (London: Royal Colonial Institute, Northumberland Ave., 1927. 5s. per year.)

A guide to the government documents of the British dominions and colonial possessions has appeared with the publication in April of the first number of the *Overseas Official Publications*, by the librarian of the Royal Colonial Institute, which is the "unofficial depository in England

The bibliography is compiled from the periodicals received by the Royal Colonial Institute, which is the "unofficial depository in England of most of the official publications issued in the Overseas British Empire, including India, or relating thereto." The value of the list is greatly increased by annotations describing the contents of certain publications. This issue, of twenty-four pages, contains material received during the last three months, beginning with December 1, 1926.

The entries are grouped under the different countries and provinces of the British Empire, arranged in alphabetical order, and, under these headings, are arranged in an admirably clear and logical way. The list is not only a valuable contribution to the subject of British Overseas Official Publications, but it may well serve as a model to those compiling bibliographies of this type.

LAURA S. TURNBULL.

LOUIS, P. *Ancient Rome at work.* (London: Kegan, Paul. 1927. 16s.)

MALLORY, W. H. *China: land of famine.* (New York: American Geographical Society. 1926. Pp. xvi, 199.)

A study of the economic causes of and cures for famine. The author was secretary of the China International Famine Relief Commission. Both cause and cure are discussed under the headings economic, natural, political and social. The volume has interesting illustrations and maps.

MAULDON, F. R. E. *A study in social economics. The Hunter River Valley, New South Wales.* (Melbourne: Workers' Educational Association of N. S. W. in conjunction with Robertson & Mullens. 1927. Pp. v, 201. 12s. 6d.)

While this volume is naturally of special interest to Australians, it is a stimulating example of intensive monographic investigation, which might well be followed elsewhere. The author chooses new outlines for his chapters, and coördinates the material into an intelligible picture. Under physiography, he describes the shape of the valley, its substance, and its geographic position. Successive chapters deal with livelihood from the land, from coal mining, manufactures and in transport and commerce. Final chapters treat of economic defense associations and the occupations of the people. The study is illustrated by charts and diagrams and annotated with notes.

MAXWELL, L. W. *Discriminating duties and the American merchant marine*. (New York: H. W. Wilson. 1926. Pp. x, 238.)

This book is a historical and critical study of American discriminating duties adapted to the encouragement of overseas shipping. It is a timely effort to discover the facts of our experience with this project and to clarify opinion regarding it. The first outstanding contribution is to point out the distinction between American practice and American policy in respect to the duties levied during the period from 1789 to 1850.

By various references to executive correspondence and congressional debates, the American purpose was shown to be to secure equal rights for all ships in international trade. It was not desired that American ships should have any advantage over others even in American ports. The discriminating duties levied or advocated were always urged in retaliation for legal disabilities imposed upon our merchant ships by other governments who sought a monopolistic position for their own. Time and again our representatives abroad were directed to explain that our duties were to be relaxed or removed if and when the governments addressed would do likewise. There was nowhere evident any purpose to equalize economic conditions. The fact that money wages or interest rates were higher in America found no place in the discussion and presumably contributed nothing to the determination of policy.

It is shown that American policy to the very present time has been one of reciprocity in respect to shipping. Even the act of 1920 which was intended to pave the way for discrimination by directing the President to give notice to governments concerned that such parts of treaties as restricted the United States in imposing discriminating import and tonnage duties has remained inoperative through the unwillingness of any president to serve such notice.

MURRAY S. WILDMAN.

NEWBIGIN, M. I. *Canada, the great river, the lands and the men*. (New York: Harcourt Brace. 1926. Pp. xv, 308. \$4.)

This work has many of the signs of a *tour de force*. A glance at the bibliography shows a scanty list of references including works which cannot be regarded as fundamentally important and excluding recent works of very great importance, to mention only the volumes of two other women, L. P. Kellogg, *The French Regime in Wisconsin and the Northwest* (Madison, 1925), and E. C. Semple, *American History and Its Geographic Conditions* (New York, 1923).

The author had apparently planned a work of considerable importance. The earliest sources on Canadian history, especially the voyages of Cartier and of Champlain, are examined in great detail. But this industry wanes and increasing reliance is placed on secondary works, especially Parkman. Finally, wearied with even these sources, the author decides to limit the study to the history of New France, and to restrict a discussion of the later history of Canada to an epilogue of thirteen pages. The "book had its origin in a visit to Canada" in 1924; and even Miss Newbigin would not be able to make an impression on this subject in two years.

Under the circumstances, one is not surprised to find the work unduly concerned with references to military struggles in which the study of geography is always important and to the overwhelming importance of the activities of individuals which has proved so tempting to the historians of New France. Miss Newbigin in places surmounts all this and shows

clearly that, given time, she would have produced a thoroughly important piece of work. She recognizes the importance of cultural background as well as geographic background. For example, she emphasizes, possibly overemphasizes, the importance of the canoe to French expansion. Her final conclusion is "that while the great facts of relief cannot be changed by man's action, their significance varies with his stage of development. Thus part of the fascination of looking at man and place together and not as separate entities is that the possibilities of the combination are endless." One cannot escape the conclusions that Miss Newbigin has made no important contribution in her work, that the work would have been extremely valuable if a thorough study had been made, and that the possibilities of the combination are not so endless as they appear from this survey. As it stands, the book must remain a partially successful attempt to show the influence of the St. Lawrence on Canada's development.

It would not be an act of mercy under the circumstances to point out trifling errors of fact. The book has an index, has excellent illustrations and numerous useful maps.

H. A. INNIS.

NOLAN, P. *A monetary history of Ireland. Part I. Ancient Ireland.* (London: King. 1926. Pp. 219. 5s.)

Doubtless the history of Ireland must be re-written in a fashion worthy of an independent or semi-independent state. That the Irish had accepted Christianity while the Anglo-Saxons were rude barbarians is clear enough. The author would make Irish coined money more ancient than the Anglo-Saxon. And yet he would derive the Anglo-Saxon and Irish words for penny from the Northumbrian king, Penda, who was a most unlikely coiner of money and confessedly unknown as such.

The author's equipment lay neither in scientific training nor in scholarly detachment, but in great industry. The historical material is uncritically handled; and, suggestive as the sources are, the investigator must still go to them for himself. Although there is not a little said about commodity money, money by weight, and coins, and their equivalents (8 sheep = 1 cow), there is really nothing new for the economist either in evidence or theory.

N. S. B. G.

ODUM, H. W., editor. *American masters of social science. An approach to the study of the social sciences through a neglected field of biography.* (New York: Henry Holt. 1927. Pp. vii, 411. \$4.50.)

The list of leaders who have had a distinctive influence in the field of social science includes Burgess, Ward, Herbert B. Adams, Dunning, Small, Giddings, Veblen, Turner, Robinson, Shepherd, Dealey, Vincent, Merriam, Hayes, Gillin, Homan, Becker, Barnes, and Odum. It will be observed that five of these nineteen men have achieved a reputation in the field of history. The sketches are frank,—some of them intimate—not eulogistic, and furnish much illustration in regard to teaching methods in universities.

PAISH, G. *The road to prosperity.* (New York: Putnam: 1927. Pp. xlv, 179. \$2.)

An "interpretation and amplification" of the "Bankers' Manifesto," issued in October, 1926. It will be recalled that this statement was

signed by bankers of fifteen countries of Europe, and that six financiers in the United States gave it their approval. The argument is in favor of greater coöperation and adjustments through reciprocity. Mr. George E. Roberts in the foreword states flatly that while trade balances between the United States and Europe continue on the level of 1925, "it is idle to talk of obtaining any net reduction of the debts which other countries are owing to the United States." The author arranges his material by countries, analyzing the problem of restoration of prosperity in each. His view in regard to German reparations is summed up in the following paragraph: "So long as Germany is under obligation to sell £122½ millions of Reparation goods over and above the goods she must sell to live and pay interest, the nations will continue to be frightened about their ability to sell their own goods in competition, and will endeavor to protect their home markets from being flooded with goods which they fear will be offered at prices below their own costs of production."

PHILLIPS, U. B. and GLUNT, J. D., editors. *Florida plantation records from the papers of George Noble Jones*. (St. Louis: Missouri Historical Soc. 1927. Pp. 605. \$7.50.)

PIPKIN, C. W., editor. *Proceedings of the first annual conference at Louisiana State University on foreign affairs and American diplomacy, February 3, 4, 5, 1927*. (Baton Rouge, La.: Bulletin Louisiana State Univ. and Agric. and Mech. Coll., vol. XIX, no. 3. 1927. Pp. 180.)

RIAZANOV, D. *Karl Marx and Friedrich Engels*. (New York: International Pubs. 1927. Pp. 224. \$2.50.)

An historical study beginning with the Industrial Revolution in England covering the early revolutionary movement in Germany; the relation between scientific socialism and philosophy as interpreted by Kant, Fichte and Hegel; the history of the Communist League; the German revolution of 1848; the reaction in the fifties; and the First International.

SARKAR, B. K. *Economic development. Snap-shots of world movements in commerce, economic legislation, industrialism, and technical education*. (Madras, India: B. G. Paul. 1926. Pp. xxxvi, 428. Rs. 8.)

Based upon personal visits and travel and a wide range of current periodicals. Among the topics discussed are "Education in France for economic development;" "Economic background of Turkish victories;" "India's overseas trade;" "Japan since the earthquakes."

SÉE, H. *Economic and social conditions in France during the eighteenth century*. (New York: Knopf. 1927. Pp. xix, 245.)

The selection of this little book for translation into English was most felicitous. One wonders if it will not be more useful to a foreign public in translation than to French readers in its original form. To the English speaking reader seeking to understand the French Revolution, or aspiring to appraise the forces in French social life during the nineteenth century, the volume will be illuminating. It displays in unusual degree the capacity of self-revelation that has made the French such notable writers of memoirs. This aspect of the book will probably be more significant to the foreign than to the native reader.

One naturally compares the volume to Taine's study of the "Old Regime," to which it presents a notable contrast. The brilliant essay of Taine is injured by the persistent sense of impending catastrophe, of

decadence, and final disaster. In many ways such a situation set the stage for a vigorous treatment of the Revolution; it like all stage settings it was artificial, unreal, touched up. The present study is astonishingly realistic and sketches with great success the essential continuity of the social life of France. This aspect of French history is seldom adequately appreciated by the foreigner unacquainted with the language. "In the country which has several times given the signal for revolution to a great part of Europe, the present is related perhaps more closely to the past than is the case in countries where a much more conservative attitude has prevailed."

The plan of presentation is simple and direct. Society is described in terms of the old legal categories, qualified extensively by further analysis with reference to the economic basis of the life of the different groups. The third estate is divided into its component parts; the peasantry, and the higher and middle bourgeoisie. The nobility is likewise treated as a complex group; partly of old lineage, partly later in origin and closely identified with the law and public administration. The class lines in the clerical order are carefully drawn and its associations with both nobles and third estate indicated. There are special chapters on the manorial system, petty industry, commerce, capitalistic industry, the classes of workmen and merchants, the financiers, the high and middle bourgeoisie.

The work of translation is, for the most part, well done. The difficult problems of feudal terms are handled with more success than is common, though a few are neither translated nor explained. Brief notes on such terms would have been helpful either when the term first occurs or consolidated in a brief glossary. With such notes, translations of the most difficult terms would be clear of all danger of misunderstanding, even if exact equivalents were unavailable.

ABBOTT PAYSON USHER.

_____. *La vie économique de la France sous la monarchie censitaire, 1815-1848.* (Paris: Felix Alcan. 1927. 20 fr.)

SHERMAN, W. R. *The diplomatic and commercial relations of the United States and Chile, 1820-1914.* (Boston: Richard G. Badger. 1926. Pp. 224.)

The emphasis in this volume is specifically upon the diplomatic aspect of the subject. The achievements of the successive ministers to Chile are presented in considerable detail, without much regard to the actual importance of their work. It is for the most part a story of negotiations to secure compensation for illegal acts of Chilean officials. Some delicate legal problems were at times involved; but most of the difficulties grew out of the poverty of the early governments of Chile. They endeavored to evade their just responsibilities by protracted negotiation. For this portion of the subject, printed and manuscript sources have been carefully utilized, so that many new items are brought out and well-known incidents are retold with complete documentation. Allusions to our commerce are frequent; but no new materials are used, and the references are brief and casual. There is a chapter on the trade between the United States and Chile in 1914 which is wholly adequate, but scarcely new or fresh.

A. P. U.

SINHA, J. C. *Economic annals of Bengal.* (London: Macmillan. 1927. Pp. vi, 301. 12s. 6d.)

1927]

VOLPI,
(NewWADE
the a
Pp.YOSHIS
Japo
50 frYOUNG
Wor
PeaZIMAN
ope
AssZOLOT
B.Anna
192Deut
TeNo
(BExp
Dide
InPp
Hun

In

The
of
CJap
PSiri
f

v

Yed
l

Ar

at
in

VOLPI, COUNT & STRINGHER, B. *The financial reconstruction of Italy.* (New York: Italian Historical Soc., 113 W. 42nd St. 1927. \$1.)

WADE, H. T., editor. *The new international year book: a compendium of the world's progress for the year 1926.* (New York: Dodd, Mead. 1927. Pp. 799. \$6.75.)

YOSHISOMI and HÖGAGULSKI. *Etude sur l'histoire économique de l'ancien Japon, des origines à la fin du douzième siècle.* (Paris: Pedone. 1927. 50 fr.)

YOUNG, A. A. and FAY, H. VAN V. *The international economic conference.* World Peace Foundation pamphlets, vol. X, no. 4. (Boston: World Peace Foundation, 40 Mt. Vernon St. 1927. Pp. 411. 5c.)

ZIMAND, S. *State capitalism in Russia: the soviet economic system in operation, 1917-1926.* Revised edition. (New York: Foreign Policy Assoc., 18 E. 41st St. 1926. Pp. 77.)

ZOLOTAS, X. *Griechenland auf dem Wege zur Industrialisierung.* (Leipzig: B. G. Teubner. 1926. Pp. 144. Mk. 5.)

Annali di economia, 1926-1927. Vol. III. (Milan: Università Bocconi Ed. 1927. Pp. xi, 427.)

Deutschland unter dem Dawes-Plan. Die Reparationsleistungen im zweiten Teil des zweiten Planjahres. Die Berichte des Generalagenten vom 30 November, 1926, nebst Sonderberichten der Kommissare und Treuhänder. (Berlin: Reimar Hobbing. 1927. Pp. v, 349.)

Exposé du Ministre des Finances sur la situation financière et économique. Discours prononcé à la Chambre des Députés à l'occasion de l'ouverture de la discussion du projet de budget pour l'exercice, 1927-28. (Belgrade: Imprimerie Nat. du Royaume des Serbes, Croates et Slovènes. 1927. Pp. 16.)

Hungary before and after the war in economic-statistical maps. (Budapest: Institute of Pol. Sci. of the Hungarian Statistical Soc. 1926. Pp. 159.)

The interallied debts: statements as to the desirability of an early revision of existing arrangements. Internat. Conciliation, no. 230. (New York: Carnegie Endowment for Internat. Peace. 1927. 5c.)

Japan: the twenty-sixth financial and economic annual, 1926. (Tokyo: Gov. Printing Office. 1926. Pp. vi, 228. 2.35 yen.)

Sixty years of Canadian progress, 1867-1927. Diamond jubilee of the Confederation of Canada. (Ottawa: H. M. Stationery Office. 1927. Pp. viii, 168. 10c.)

Year book of the state of Indiana for the year 1926. (Indianapolis: Legislative Bureau. 1926. Pp. vi, 1184.)

Agriculture, Mining, Forestry, and Fisheries

An Introduction to the Marketing of Farm Products. By ALVA H. BENTON. (Chicago: Shaw. 1926. Pp. xviii, 427.)

The preface of this book leads one to expect that the author has attempted a serious and critical examination of marketing processes in agricultural trades. For that matter, even if he did not tell us

that he sought to provide "a book that would in a brief and simple way point out the broad principles involved in marketing farm products and the important marketing practices in use," we should be inclined to look for such an attempt in a new book in this field, which is already covered in various ways by books of the mostly categorical and un-explanatory sort. Yet, this book turns out to be, in our judgment, little more than an uncritical account of the agencies that compose the agricultural commodity trades. As such, it will furnish pleasant reading for the uninquiring and beginning student, because it is simply and clearly written. For other beginners in this field of study it will furnish valuable information and perhaps some incentive to the more serious study of the organizing principles of markets, and of the underlying relations of the various factors and agencies which they comprise. Some readers will be induced to ponder these considerations, although they have a right to expect such matters to be more explicitly dealt with in a book designed for a text.

In some measure, the author's manner of treatment of the field is responsible for his failure to provide a better basis of judgment of marketing operations and activities. Except for two short chapters at the beginning, and four at the end, the book is mostly given over to an account of the various agencies found in some fifteen commodity trades, with some brief discussion of their activities and functions. Everything from livestock to nuts is discussed, but necessarily quite superficially in so small a volume. It is an exaggerated example of the commodity method treatment of marketing, which as usually followed, doesn't serve well, in our judgment, for presenting the subject. Unmistakable evidence of its shortcomings, at least in this book, is furnished by the lack of connection that one may readily detect between the first two chapters of the book and the subsequent ones. The first and second chapters deal with the concept of a market, the meaning of trading, and the services of middlemen in a market. But the remainder of the book has nothing to say concerning markets as such. These subsequent chapters deal briefly with various kinds of business concerns to be found in the agricultural trades, without any comment, much less analysis, of the character and the quality of the markets which they constitute in their relations and organization. The result is a failure on the one hand to present any adequate concept of the organization and structure of actual markets, and, on the other hand, to reveal the meaning and significance of marketing agencies and practices.

It seems clear that knowledge of middlemen and their services is an understanding of the place occupied by each as a part of a whole, which is the market, and of the part played by it in the functioning of the market. Take, for example, the importance of commission agencies in the hog trade. The author presents some facts about their expert

services to country shippers on page 89. Then on page 107 he suggests that "the activity of the packers in sending their buyers into the country and shipping the livestock purchased direct to the packing plants is giving both private and coöperative commission agencies at the packing centers some apprehension, as it is reducing the volume of their business." With this the reader is left to wonder, unless he happens to have given the matter special study, what the limitations as well as the possibilities of these developments are from the standpoint of the most important factors of the market, the country sellers, and the packer buyers. He cannot be satisfied with only some information concerning the activities of commission agents; for he is seeking, let us hope, knowledge of them which must be some appreciation of their institutional significance.

PAUL L. MILLER.

Iowa State College.

American Pork Production in the World War. By FRANK M. SURFACE.
(Chicago: Shaw. 1926. Pp. xi, 217. \$3.00.)

This book deals in an historical manner with the problem of sufficiently stimulating hog production in the United States in 1917 and 1918 to insure adequate supplies of pork products for the Allies in the World War. Dr. Surface was formerly economist for the United States Food Administration and for the American Relief Administration; and he has written an interesting, stimulating and scholarly volume on one of the most important phases of agricultural economics of the war period. The volume has created considerable controversy, however, because Dr. Surface eulogizes Herbert Hoover throughout the entire book, and makes no critical estimate of certain important policies regarding the wisdom of which there has been great difference of opinion.

Following a description of what America meant to the Allies in 1917, a statistical analysis is made of the European food shortage, especially in fats and meats, with the conclusion that the American hog was the salvation of the Allied fat supply. The production of hogs, which had decreased greatly in 1917 because of the distortion of the relative prices of hogs and feed, was stimulated by the Food Administration through a price ratio between corn and hogs out of which much misunderstanding later arose. However, the fact is that, in spite of misunderstanding, the number of hogs increased under this regime from 60,000,000 in the fall of 1917, to more than 74,000,000 on January 1, 1919.

Dr. Surface traces the control of Allied military and naval purchases of American pork products necessary to keep up a fair price level. Likewise, he describes the agreements with some fifty American meat

packers, large and small, by which they undertook to maintain the minimum price for hogs at the principal markets, with the understanding that they were to have the support of Allied and government buying. The general basis of allotment to the individual packer was the average number of hogs killed during the three years 1915-1917. To prevent all suspicion of profiteering, regulations were issued, under a presidential proclamation, limiting the profits of the larger packers to 9 per cent on the average capital, a needless precaution, since the total profits for 1918, while the control existed, were only 5.6 per cent, instead of the 9 per cent allowed. Dr. Surface acknowledges the full coöperation of the packers who, through patriotic motives, carried greater stocks of high priced products than sound business operations would always warrant.

The Armistice saw the fruition of the Food Administration's campaign for hog production; and the runs became so heavy that the previous price and ratio arrangements could not be continued. To meet this situation Mr. Hoover and the Food Administration bent extra efforts toward maintaining the heavy flow of pork to Europe for relief uses, even in the face of discouragement and positive hampering by some of the Allied governments. Undoubtedly this work did much to stave off the tremendous decline in American hog prices, and thus saved many human lives throughout Europe. It was only after strong and able representations by Hoover to the War Council at Paris that its short-sighted policy against sending food into Germany was abandoned and this market for our pork surplus was opened up. Anyone reading this book will agree that the Food Administration was a great constructive force even though it seems that the praise of Mr. Hoover, as the only individual of clear vision connected with the government, is rather overdone.

The chief criticism this reviewer, as well as other students, has to make of Dr. Surface's volume relates to his treatment of the maintenance of the famous 13 to 1 corn-hog ratio. In this matter he does not tell the whole story, giving only the Hoover side of it. A careful re-reading of the actual documents would reveal a situation allowing a broader interpretation.

On October 19, 1917, Mr. Hoover appointed a Committee to Investigate the Cost of Producing Hogs; and this committee, of which Professor John Evvard of Ames, Iowa, was chairman, made its report on October 27, 1917. This report and its exact wording is fundamental to an understanding of the later action of the Food Administration in its treatment of the corn-hog ratio. The committee recommended that, in order to stimulate hog production it was necessary to have a price established which was to return to the producer the equivalent value of 13.3 bushels of corn for 100 pounds of average hog. Further, the

committee stated that "Chicago is a basic market for corn and hogs. Therefore, we recommend that Chicago be used as the basis in any price stabilization." The report also declared that the ratio at that time existing had been figured on the basis of Chicago No. 2 corn and Chicago average hogs. This meant, if it meant anything, that the Food Administration was in favor of a Chicago ratio of 13 to 1; and that was the sense in which the recommendation was accepted by livestock producers. Indeed, Joseph P. Cotton, chief of the meat division of the Food Administration Act on November 3, 1917, stated that the intention and policy of the Administration was to try to maintain a price based on the 13 to 1 Chicago ratio.

The unfortunate outcome was that, finding itself unable to maintain a real 13 to 1 ratio, the Food Administration tried to extricate itself by stating that the ratio meant "thirteen times the average cost per bushel of the corn fed into them." While this declaration of policy did not definitely state that it was using a Chicago ratio, it did state that the committee was basing its policy upon the recommendations of the board of experts. Taking the two reports together, therefore, the one of the committee on the cost of producing hogs, and Mr. Cotton's statement, the only reasonable interpretation then is that the price ratio to be upheld should be a Chicago price for hogs against a farm price for corn.

The hog producers under either ratio, we may agree, received a fairly good price. The change in policy, however, aroused much agricultural discontent against Mr. Hoover and his methods. Indeed, among other protests, at a meeting of the Corn Belt Meat Producers' Association, on October 22, 1918, its representatives to meetings called by the Food Administration were instructed "to insist that the hog-corn ratio adopted by the Food Administration, November 3, 1917, be carried out in good faith in accordance with the original intent; and that all promises direct or indirect, made by the Food Administration for the purpose of stimulating production, be made good in both letter and spirit." The Association announced that if changed conditions made it impossible for the Food Administration to fulfill its promise, it was willing to accomplish whatever was necessary to win the war and feed our people, but that it asked to be excused from further participating in the agreements until the Food Administration secured the necessary authority to carry them out.

The most valuable part of the volume, partly because of its broader interest, is probably that which deals with the post-war opening up of world markets. This first-told story of the feeding of Europe by America, Dr. Surface has presented in an excellent manner. He points out vividly that, without it, Europe would have witnessed the greatest

famine since the Thirty Years' War and that this relief work was an important turning point in the world's history.

RUDOLF A. CLEMEN.

Armour's Livestock Bureau, Chicago, Ill.

NEW BOOKS

AUGE-LARIBE, M. and PINOT, P. *Agriculture and food supply in France during the war*. Econ. and social hist. of the World War, translated and abridged ser. (New Haven: Yale Univ. Press. 1927. \$4.)

The part dealing with agriculture is by Michel Auge-Laribe; that dealing with food supply is by Pierre Pinot.

BROWN, H. B. *Cotton: history, species, varieties, morphology, breeding, culture, diseases, marketing, and uses*. (New York: McGraw-Hill. 1927. Pp. xi, 517. \$5.)

BRUNNER, E. DE S., HUGHES, G. S. and PATTEN, M. *American agricultural villages*. (New York: George H. Doran. 1927. Pp. xxiii, 299.)

COTE, L. P. *L'esclavage au royaume du Saguenay, dépouillés, exploités, esclaves dans notre propre province*. (Montreal: Imprimerie Populaire. 1926. Pp. 23.)

An attack by a timber cruiser on the social effects of the exploitation of the natural resources of Quebec. It is chiefly interesting for the sidelight it gives on the population problem in that province.

FÈVRE, G. L. *L'épopée du caoutchouc*. (Paris: Lib. Stock. 1927.)

FORSEY, E. *Economic and social aspects of the Nova Scotia coal industry*. Economic studies of McGill University, no. 5. 1927. Pp. 126.)

A description of the coal and iron development of Nova Scotia from 1893-1926 with reference to finance, management, markets, industrial relations and social conditions. The author in the main supports the recommendations of the *Report of the Duncan Commission* with regard to federal aid. The work includes a statistical appendix showing sales of coal in various markets, a bibliography and an index.

H. A. I.

GODFREY, E. H. *Growth and organization of the Canadian grain trade*. (London: Royal Agricultural Soc. 1926. Pp. 32.)

HENDERSON, J. *The practical value of birds*. (New York: Macmillan. 1927. Pp. xii, 342. \$2.50.)

A "digest-index" of the data of economic ornithology, prepared by the professor of natural history and curator of museum at the University of Colorado. The first hundred pages are devoted to the economic services rendered by birds, in checking plagues of insects and rodents and the damage done by injurious plants. Chapter 16 deals with the destruction of birds. The bibliographical references are extensive.

ISRAEL, H. and LANDIS, B. Y., editors. *Handbook of rural social resources*. (Chicago: Univ. of Chicago Press. 1926.)

KUCZYNSKI, R. *Deutschlands Versorgung mit Nahrungs und Futtermitteln*. Teil I. *Statistische Grundlagen*. Teil II. *Pflanzliche Nahrungs und Futtermittel*. Teil III. *Tierische Nahrungs und Futtermittel*. (Berlin: Julius Springer. 1926. Pp. vii, 176; 406; 147.)

- McPHERSON, J. B. *Annual wool review, 1926*. Bull. Nat. Assoc. of Wool Manufacturers, vol. LVII, extra no. 1. (Boston: Nat. Assoc. of Wool Manufacturers. 1927. Pp. 222. 50c.)
- OLCOTT, M. T., compiler. *World food supply: a selected bibliography*. U. S. Dept. of Agric. Library, no. 9. (Washington: Supt. Docs. 1925. Pp. vi, 68, mimeographed.)
- POWELL, F. W. *The Bureau of Animal Industry. Its history, activities, and organization*. Monographs of the U. S. Gov., no. 41. (Baltimore: Johns Hopkins Press. 1927. Pp. xii, 190. \$1.50.)
- TAU, B. R. *The economics of the leather industry, with special reference to Bengal*. (Calcutta: Calcutta Univ. Press. 1925. Pp. 184.)
- ROCHELEAU, W. F. *Minerals: the first book of the great American industries series*. Revised edition. (Chicago: A. Flanagan Co. 1927. Pp. 212.)
- SARKAR, B. K. *The law and the cultivator: the example of France*. Reprinted from the *Journal of the Bengal National Chamber of Commerce* for December, 1926. (Calcutta: Calcutta Oriental Press. 1926. Pp. 18.)
Deals largely with agricultural credit.
- SISLER, J. D. *Bituminous coal fields of Pennsylvania. Part 2. Detailed description of coal*. (Harrisburg, Pa.: Pa. Dept. of Forests and Waters. 1926. Pp. xvi, 511.)
- SPILLMAN, W. J. *Balancing the farm output*. (New York: Orange-Judd Co. 1927. Pp. 128. \$1.25.)
- STORM, E. *Geschichte der deutschen Kohlenwirtschaft von 1913-1926*. (Berlin: Phönix-Verlag. 1926. Mk. 15.)
- THOMAS, E. *The economics of small holdings. A study based on a survey of small scale farming in Carmarthenshire*. (Cambridge, England: Cambridge Univ. Press. 1927. Pp. xii, 132. 4s. 6d.)
- VANDERBLUE, H. B. and CRUM, W. L. *The iron industry in prosperity and depression*. (Chicago: Shaw. 1927. Pp. xiv, 193. \$7.50.)
An exhaustive statistical monograph, covering prices and production, and forecasting conditions in the industry of iron and steel. There are nearly 100 charts and as many tables.
- WILKINS, V. E. *Research and the land. An account of recent progress in agricultural and horticultural science in the United Kingdom*. (London: H. M. Stationery Office. New York: British Library of Information, 44 Whitehall St. 1926. 65c.)
A clear and readable account of scientific work in England for the promotion of agriculture.
- WILLIAMS, A. *Power on the farm*. Address before the Academy of Political Science in the City of New York at its annual meeting on "Problems of prosperity," November 17, 1926. (New York: Acad. of Pol. Science. 1927. Pp. 15.)
- The agricultural outlook for 1927*. U. S. Dept. of Agric., misc. circ. no. 101. (Washington: Supt. Docs. 1927. Pp. 40.)

Investigation into alleged combine in the distribution of fruit and vegetables; interim report of commissioners. (Ottawa: H. M. Stationery Office. 1925. Pp. 184.)

A description of the practices of distributing organizations for fruit in the western provinces and recommendations for removal of the causes of complaint.

Le livre d'or de l'industrie du caoutchouc. (Paris: Rev. Gén. du Caoutchouc. 1927. Pp. 314.)

Petroleum-Boek. (Amsterdam: Uitgave van het Dagblad De Telegraf. 1927. Pp. 212.)

Manufacturing Industries

NEW BOOKS

AIKMAN, C. H. *The automobile industry of Canada.* Economic studies of McGill University, no. 8. (Toronto: Macmillan. 1927. Pp. 48.)

A description of the growth of the industry in Canada with some reference to the effects of protection, imperial preference and recent tariff changes. It includes appendices showing the tariff on automobile parts prior to April 15, 1926, and a comparative table of prices in Canada and the United States of several important models. There is a bibliography and an index.

H. A. I.

BADER, L. *World-development in the cotton industry, with special reference to the cotton piece goods industry in the United States.* (New York: N. Y. Univ. Press. 1925. Pp. xvii, 187. \$3.)

Chapter headings include changes in the cotton industry in the United States since 1860, growth of the industry in Japan and other Asiatic countries, Latin America and Europe. The advantages of the South are analyzed. Part 2 deals more particularly with marketing problems of the industry. There are many tables and charts; and the volume is a timely contribution to the serious problem which now exists.

CHENEY, O. H. *The new competition in the lumber industry.* Address delivered before the twenty-fifth annual convention of the National Lumber Manufacturers Association, April 28, 1927. (Chicago: Nat. Lumber Manuf. Assoc. 1927. Pp. 13.)

COMPTON, W. *Looking ahead from behind.* Address delivered before the twenty-fifth annual convention of the National Lumber Manufacturers Association, April 29, 1927. (Chicago: Nat. Lumber Manuf. Assoc. 1927. Pp. 46.)

HUNTER, J. A. *Cloths and the cloth trade.* Common commodities and industries series. (New York: Pitman. 1927. Pp. 128. \$1.)

KING, W. I. *The building situation in 1927.* Reprinted from *American Contractor*, March 26, 1927. (Chicago: American Contractor, 131 N. Franklin St. 1927. Pp. 5.)

REICH, N. *The pulp and paper industry in Canada.* Economic studies of McGill University, no. 7. (Toronto: Macmillan. 1927. Pp. 77.)

A review of the development of the industry and a discussion of the possibilities of conservation. Includes statistical tables showing resources, production and exports, a bibliography and an index.

WALKER, J. B. *The story of steel.* (New York: Harper & Brothers. 1926. Pp. xii, 208. \$4.00.)

This volume is based upon personal visits to the plants of the industry, and appeared in part in the *Scientific American*, of which the author was formerly an editor. Aside from technical description, there are chapters on the financial policy of the United States Steel Corporation and marketing the product.

Central electric stations in Canada. Dominion Bureau of Statistics, census of industry. 1925. (Ottawa: H. M. Stationery Office. 1927. Pp. 58. 25c.)

Facts and figures of the automobile industry. 1927 edition. (New York: National Automobile Chamber of Commerce. 1927. Pp. 96.)

Looking ahead in business. (New York: F. W. Dodge Corp., 119 W. 40th St. 1927. Pp. 13.)

The motor industry of Great Britain, 1926. (London: Soc. of Motor Manufacturers and Traders. 1926. 2s.)

Transportation and Communication

NEW BOOKS

AGG, T. R. and BRINDLEY, J. E. *Highway administration and finance.* (New York: McGraw-Hill. 1927. Pp. x, 382. \$4.)

Three plans of highway administration are considered. One deals with legislation providing for the work of a highway department; the second, the financial system; and the third, the organization of the staff engaged in construction and maintenance. State and federal systems are covered, with one chapter on highway systems outside the United States. Highway bonds and assessments are each given a chapter. References are provided for more special readings.

BOGEN, J. I. *The anthracite railroads. A study in American railroad enterprise.* (New York: Ronald. 1927. Pp. vii, 281. \$4.25.)

A contribution to the economic history of the United States. Successive chapters summarize the history of the Philadelphia & Reading Railroad; Delaware Lackawanna & Western Railroad; Lehigh Valley Railroad; Central Railroad Company of New Jersey; and the Delaware & Hudson Company. Chapter 8 treats of the segregation of coal properties. In a final chapter the author discusses the future of these roads, and analyzes the rate situation. There is nearly half a century of future coal traffic assured.

The author was formerly railroad editor of the *New York Journal of Commerce.*

BUTTERBAUGH, W. E. *How to build up business for interurban truck line.* (New York: National Automobile Chamber of Commerce. 1927. Pp. 12.)

HOWE, O. T. and MATTHEWS, F. C. *American clipper ships.* Vols. I and II. (Salem, Mass.: Marine Research Soc. 1926. Pp. 796. \$7.50 each.)

JACKSON, G. G. *The world's railways.* (Philadelphia: McKay. 1927. Pp. 165. \$3.50.)

LEENER, G. DE. *Les chemins de fer en Belgique*. (Brussels: Maurice Lamertin. 1927.)

MEHTA, N. B. *Indian railways: rates and regulations*. (London: King. 1927. Pp. x, 188. 10s. 6d.)

Prepared as a thesis for the Ph. D. degree at the London School of Economics. Three facts are emphasized: the preponderant financial stake of the state in the railways; the obsolescence of the theory of the automatic regulation of railway rates by competition or by the law of supply and demand; and the need, therefore, of a more rigorous yet enlightened policy of state control.

NORRIS, H. H., editor. *Making transportation pay, 1926*. Fourth in the series of *Electric Railway Practices*. (New York: American Electric Railway Association. 1927. Pp. xiii, 244.)

This is a digest of "presentations" made by electric railways for the Charles A. Coffin prize. Among the topics under which the contributions are arranged, are coördination of rail and bus, distinctive cars, special and regular service, advertising, economics, and safety effort. One chapter deals with experience in selling stock to employees.

PERRY, H. S. *Federal intrastate railroad rate regulation*. A thesis. (Philadelphia: University of Pennsylvania. 1926. Pp. 105.)

Analyzes the Act of 1887; the beginning of federal intrastate regulation, 1914-1920; the Act of 1920; the Commission's interpretation by the Supreme Court; and the coöperative plan drawn up by the Interstate Commerce Commission and the National Association of Railway and Utilities Commissioners.

SCHULZ, J. *Des Verhältniss der Deutschen Reichsbahn zur Reichspost und Telegraphenverwaltung unter besonderer Berücksichtigung der finanziellen Auseinandersetzungen*. Teil I. (Berlin: Verlag der Verkehrswissenschaftlichen Lehrmittelgesellschaft bei der Deutschen Reichsbahn. 1927. Pp. 64.)

SIN, H. T. *Le problème du chemin de fer chinois de l'est*. (Paris: Les Ecrivains Réunis. 1927. Pp. 460.)

SMITH, D. H. *The Panama Canal: its history, activities, and organization*. Monographs of the U. S. Govt., no. 44. (Baltimore: Johns Hopkins Press. 1927. Pp. xvii, 413. \$2.50.)

TICHENOR, F. A., editor. *Aviation*. Annals, vol. CXXXI, no. 220. (Philadelphia: Am. Acad. of Pol. and Soc. Science. 1927. Pp. iv, 205. \$2.)

TOMBS, L. C. *The port of Montreal*. Economic studies of McGill University, no. 6. (Toronto: Macmillan. 1927. Pp. 178.)

A valuable description of the development, organization and facilities of the port of Montreal with some attempt to appraise its probable future. It includes valuable statistical notes on exports and imports and shipping rates, together with illustrations and maps. There is an index but no bibliography.

H. A. I.

Das deutsche Eisenbahnwesen der Gegenwart. 3 Ausgabe. Stand vom Jahre 1920. (Berlin: Reimar Hobbing. 1927. Pp. viii, 577.)

Freight commodity statistics: Class I, steam railways in the United States, year ended December 31, 1926. Statement no. 27,100. (Washington: Supt. Docs. 1927. Pp. 139. 50c.)

Great Lakes commerce and the port of Oswego, New York, 1925. Vol. I, Report. Vol. II, Maps, tables and diagrams. By Fay, Spofford and Thorndike, consulting engineers. (Oswego, N. Y.: Harbor & Dock Commission. 1927. \$10.)

This is an exhaustive engineering and economic investigation of the transportation changes which are likely to take place in view of the construction of the new Welland Canal between Lake Erie and Lake Ontario. It is expected that this canal will divert Canadian commerce from routing through Buffalo; and proposals are under way that Oswego at the end of Lake Ontario should be developed to take care of the new commercial opportunities which may arise. To present this subject adequately, the engineers have made an exhaustive investigation of commerce of the Great Lakes, a commodity survey, freight rates, water outlets from the Great Lakes, shipping and ship operation on the Lakes, the New York State Barge Canal, and the commercial history of Oswego. There are approximately 20 maps and over 70 detailed charts and tables. These volumes will provide source information for future historians of American economic conditions.

Interstate Commerce Commission reports. Vol. 113. *Decisions of the Interstate Commerce Commission of United States, June-July, 1926.* (Washington: Supt. Docs. 1927. \$2.25.)

Record of American and foreign shipping, 1927. (New York: American Bureau of Shipping. 1927. Pp. 1307.)

Report on improved transportation facilities in the Boston Metropolitan District. (Boston: Division of Metropolitan Planning, State House. 1926. Pp. 85.)

61st railroad now substitutes bus for branch line. (New York: National Automobile Chamber of Commerce. 1927. Pp. 7.)

Some economic phases of transportation. Misc. ser. no. 43. (Washington: Bureau of Railway Economics. 1927. Pp. 27.)

Statistics of railways in the United States for the year ended December 31, 1925. (Washington: Supt. Docs. 1927. Pp. cxxiv, 275.)

St. Lawrence waterway project. Senate doc. no. 183. (Washington: Supt. Docs. 1927. Pp. 59.)

Subways in the City of New York: an annotated list of selected references, 1910-1927. Vol. XIII, no. 20. (New York: N. Y. Public Library. May, 1927. Pp. 22.)

Trucks and busses in competition with the express company in Oregon. Commonwealth Review vol. IX, no. 2. (Eugene: Univ. of Oregon. April, 1927. Pp. 58.)

Trade, Commerce, and Commercial Crises

NEW BOOKS

CONRAD, O. *Absatzmangel und Arbeitslosigkeit als Dauerzustand.* (Vienna and Leipzig: Holder-Pichler-Tempsky. 1927. Pp. vii, 104. M. 4.80.)

The author argues that the unemployment in Europe in late years

is due not so much to temporary causes as to the more permanent conditions of industry and trade. The cause is not to be found in the protective system, nor in the diminished productivity of European labor owing to the exhaustion resulting from the war, nor to the lack of fixed capital of which so much was destroyed. These things may be contributing agents; but the real cause is the system of capitalistic individualism, capital being used not as in the war for the production of what the nation needed, but regardless of this for the production of what will bring profit to the capitalist. This results in crises, in the antagonism of classes, with the consequent waste through strikes and lockouts. Professor Soddy's book on *Wealth, Virtual Wealth and Debt* sounds the same warning as this author. R. R. W.

LANGENBECK, W. *Geschichte des Welthandels der Neuzeit.* (Leipzig: Weber. 1926. Mk. 5.)

PIGOU, A. C. *Industrial fluctuations.* (New York and London: Macmillan. 1927. Pp. xxii, 397.)

POIRIER, A. *Des crises économiques, commerciales et financières.* (Paris: Langlois, 186 Faubourg Saint-Martin. 1926. Pp. 57.)

RUCKERT, F. *Die Handelsbeziehungen zwischen Deutschland und der Schweiz mit besonderer Berücksichtigung der Gestaltung der handelspolitischen Verhältnisse seit dem Beginn des 19 Jahrhunderts.* Wirtschafts und Verwaltungsstudien mit besonderer Berücksichtigung Bayerns. Band 74. (Leipzig: A. Deichert. 1927. Pp. xii, 237.)

Doing export business. (Washington: Chamber of Commerce of the U. S. 1927. Pp. 63. 15c.)

Memorandum on production and trade. (Geneva: League of Nations, Economic and Financial Section. 1926. Pp. 45. 40c.)

The object of this memorandum is to answer the three following questions:

1. What changes have taken place in the population of the world since 1913 and in the territorial distribution of that population?

2. What changes have taken place in the production of basic raw materials and foodstuffs in the world as a whole and in the main divisions into which the world naturally falls.

3. What changes have taken place in the quantum of world trade and in its distribution?

The main conclusions reached are summarized as follows:

a. The population and trade of the world in 1925 were both about 5 per cent greater than in 1913.

b. The production of foodstuffs (exclusive of China) and raw materials has increased more rapidly than the population of the world and is now probably 16 to 18 per cent in excess of what it was in 1913.

c. The population of Europe has only increased by a little more than 1 per cent; her production of raw materials and foodstuffs, thanks largely to a favorable harvest, was in 1925 4 to 5 per cent above the pre-war level, and her trade probably some 10 per cent below that level.

d. In 1924, the production of raw materials and foodstuffs in Eastern and Central Europe, including Russia, still fell short of the pre-war figures by nearly one-fifth, while the trade of these countries did not reach 66 per cent of what it had been, despite the increase in the number of trading countries. During 1925, however, Central Europe made more

rapid progress than did the rest of the Continent, her trade is now about three-quarters of what it was, and her production index just over par.

e. The population of the western and maritime nations of Europe is now about 5 per cent greater than in 1913. The production index of this group of countries, inclusive of cereals and foodstuffs, was in 1925 about 7 per cent greater than before the war and, exclusive of cereals and foodstuffs, scarcely up to the population figure, while trade just failed to reach the pre-war level.

f. The population of North America is almost one-fifth, that of South America perhaps slightly over one-fifth, and that of Oceania (Australia, New Zealand, etc.) over one-sixth, greater than in 1913. The growth of population in other parts of the world has been much less rapid.

g. On the other hand, the trade of Asia has increased almost, though not quite, as fast as that of North America. In both these continents it was over one-third, and in Oceania just under one-third, greater than in 1913, while in Africa and South America it has shown no increase.

h. The production of raw materials and foodstuffs in North America, Asia and Oceania is now about one-quarter above the pre-war amount; in South America and Africa (gold excluded) it is over one-third greater, and in Central America the increase has been still higher.

Report of the Trade Barriers Committee of the International Chamber of Commerce. International Economic Conference, Geneva, May 4, 1927. Documentation. (Geneva: League of Nations. 1926. Pp. 33.)

Transportation on the Great Lakes. Prepared by the War Dept., Corps of Engineers, U. S. Army and U. S. Shipping Board. (Washington: Supt. Docs. 1926. Pp. 426. \$1.50.)

This is the first of a series of reports dealing with the transportation problems related to the functions of the War Department and the Shipping Board. It contains a general description of the Great Lakes and their connecting channels and harbors, and gives information relative to laws, treaties and regulations governing navigation and traffic on these waters. The larger portion is devoted to an intensive study of the movements of the important bulk commodities, of which grain, iron ore and coal comprise the greater share of the traffic. Other commodities covered by the report are limestone, petroleum, forest products, sand and gravel. The package freight movement is shown for each port and information is given regarding the lines engaged in this service and the terminals available for handling package freight. The car ferry service is also described and information given regarding the traffic handled.

In the case of grain, the shipments are shown from each state to the various upper lake ports, thence by water down the lakes to lower lake ports. Similarly, the iron ore is traced from the various ranges to the ports of shipment, thence by way of the Great Lakes to the receiving ports, and from the latter by rail to the various destinations. Coal moving from mines in Pennsylvania, West Virginia, Kentucky and Ohio, is traced to Lake Erie ports and thence by water to the upper lake ports, from which points the movements are still further shown to the states of final destination.

The report contains numerous graphs and colored flow charts showing the movements of the important commodities.

Accounting, Business Methods, Investments and the Exchanges

Scientific Foundations of Business Administration. By H. C. METCALF, editor. Human relations series, IV. (Baltimore: Williams & Wilkins. 1926. Pp. 341.)

The book is a compilation of a series of conferences conducted under the direction of Mr. Metcalf. In his introduction he defines its purpose as "a serious attempt to analyze the philosophical, biological, economic, psychological foundations of business administration and its basic administrative principles, and to apply them to practical business affairs."

A section is devoted to each of these subjects. Dr. Overstreet discusses the philosophic foundations; Dr. Caldwell, the biological; Dr. Carver, the economic; Miss Follett, the psychological; Dr. Person relates the development of the management movement and suggests the fundamental problems of business; while Mr. Dennison furnishes evidence of how these principles may be employed by the business executive.

The scope of the book is actually confined to an even narrower field than that included in the definition of the purpose. It is concerned chiefly with the relationships between human beings engaged in business, or as it is more definitely described in the business world, the problem of personnel management. As is the case with most compilations of this sort, there seems to be some lack of unity of thought, since most of the contributors attack the problem with different points of view, although Mr. Dennison reconciles these differences somewhat by showing how the various theories may be put into practice by the executive.

In one important respect, however, there is apparent unanimity of opinion. That is with regard to the use of the scientific method in attacking the problems of management. The philosopher, the biologist, the economist, the psychologist, each analyzes his facts, tests them and draws his conclusions as to the motivation for the actions of individuals, one with another, with particular consideration of the members of the two groups in which they are primarily interested, the employing and employed classes. The fact that each may ascribe different motives and recommend action based on these motives does not imply that anyone has formed the wrong conclusion. It rather indicates that probably all the motives are present in a given instance. The further implication is that the man who wishes to base his action on such facts must comprehend the significance of each and their relation to the problem as a whole.

In other words, the employer or manager should first build a

philosophy of management which he is satisfied is a true philosophy, and then recognize that the relationship between himself and the workers will vary, according to how well he interprets the influence of biological or environmental inheritances of the individual, the economic forces at work, and the psychological effect which a given act may have upon him. To progress a step further, the manager should be able to conduct the enterprise with less friction between management and workers if he can imbue his organization with the spirit of his philosophy, educate it in the soundness of the present economic order, and conduct its activities in such a way as to create favorable psychological reactions rather than the reverse.

Perhaps, however, this general statement may best be interpreted by a brief survey of the findings of the authors in these different fields. Dr. Overstreet, incidentally, is not only a philosopher but an optimist as well. He avers that as a result of a change in our philosophy, we are entering upon a higher plane of business ethics. The two principal motives in business have been "mere money making" and the "property concept—the urge to accumulate possessions, which has resulted in enslaving and dehumanizing scores of people." These motives he believes are now giving way to the productivity motive.

Whether or not there is agreement with Dr. Carver in his conclusions, his contribution is of special value in that he makes apparent beyond dispute the desirability of educating all those engaged in industry in the principles upon which our economic structure is based. If there is no real economic basis for strife between the worker and management, if the capitalistic system under which industry operates, is the only basis upon which business may be conducted, then these facts should be made evident, and each group should discover that this is so and why it is so, and proceed to conduct themselves in accordance with these truths. That implies a change in attitude on the part of both groups, which will come about as a result of each understanding the point of view and problem of the other.

Miss Follett has earned the reputation of being a straight thinker. In reading her chapters in this volume this impression is surely strengthened. She discusses constructive conflict, the giving of orders, business as an integrative unit and the use of power. Her motto might well be that suggested in the introduction, "You can scientifically control and guide men's conduct."

Dr. Person has made a real contribution by his excellent historical review of the development of the management and scientific management movements. He has brought together out of a mass of facts the important steps in these movements, and established the relation between cause and effect. He differentiates between the management

movement in the broad sense, and the scientific management movement, in so far as the latter is a definite part of the former.

Mr. Dennison's point of view is that a business executive should not hesitate to experiment, and if the results prove sound, accept whatever new truths are proved. Anything that is new should hold a challenge to him, and he should be ready to discard the old when it can be replaced by something better. We may expect, therefore, to find the real executive ready to accept from the scientific research of the scientist, the philosopher, the economist, and the psychologist, whatever theories they demonstrate to be sound and fundamental. He must add to their tests one more, however, that of practicability. The theory must be workable, there must be a reason for adopting it and it must serve a real purpose.

N. G. BURLEIGH.

Dartmouth College.

NEW BOOKS

AYER, L. J. *Cases on business law, selected, with notes and problems.* (New York: Prentice-Hall, Inc. 1927. Pp. 474. \$4.50.)

The author has brought together illustrative cases under mutual assent, consideration, capacity, illegality, fraud, form, performance, rights of third parties, remedies, and interference with contractual relations. In each case the facts are as those presented by the courts; and the opinion of the judge is given in considerable detail. Notes, problems and questions are introduced frequently.

BARRETT, R. W. *Business law.* (New York: Alexander Hamilton Institute. 1927. Pp. xxi, 349.)

BEACH, F. L. *Bank system and accounting.* (New York: Ronald. 1927. Pp. 382. \$6.)

BELDING, A. G. and GREENE, R. T. *Rational bookkeeping and accounting.* (New York and Chicago: Gregg Pub. Co. 1927. Pp. xi, 383.)

BEXELL, J. A. and NICHOLS, F. G. *Principles of bookkeeping and farm accounts.* (New York and Boston: American Book Co. 1927. Pp. 180.)

BOLLING, C. L. *Sales management: a complete guide to modern methods of marketing, advertising, selling and distribution.* (New York: Pitman. 1927. Pp. 319. \$3.)

BREWSTER, A. J. *An introduction to retail advertising.* (Chicago: Shaw. 1926. Pp. xi, 319. \$5.)

The author is head of the Department of Advertising and Selling in the College of Business Administration, Syracuse University. In preparing this volume, he "has endeavored primarily to write a book that would be helpful to retailers and secondarily to provide a textbook for schools and colleges."

In Part 1 the field of retailing has been studied to bring out the importance of this branch of our system of distribution and to point out changes that are occurring in the economic and social life of the people.

In Part 2 the relations of the retailer and manufacturer, the purpose of the retailer's advertising, and the subject of appropriation for advertising are discussed.

The writing of copy for regular and special store activities and for institutional advertising is covered in Part 3. Part 4 takes up the subjects of type, layout, and illustration, while Part 5 is devoted to the study of advertising mediums.

In Part 6 is a study of special forms of retailing—the department store, the chain store, and the small-town store—while in Part 7 is included information about various forms of coöperation in advertising and a chapter dealing with a most important form of coöperation, the promotion of 'Truth in Advertising.'

BROWN, C. F. *Labor classification and payroll analysis*. Official pubs. vol. VIII, no. 17. (New York: National Assoc. of Cost Accountants. 1927. Pp. 23.)

CARRET, P. L. *The art of speculation*. (Boston: Barron's. 1927. Pp. 365. \$3.)

CASTENHOLZ, W. B. *Auditing procedure*. (Chicago: LaSalle Ext. Univ. 1927. Pp. 430.)

CHAMBERLAIN, L. and EDWARDS, G. W. *The principles of bond investment*. Revised and enlarged edition. (New York: Henry Holt. 1927. Pp. 670. \$7.50.)

COMER, H. D. *Influence of ten-payment plan upon prestige of store*. Special bull. (Columbus: Bureau of Business Research, Ohio State Univ. 1927. Pp. 12, mimeographed.)

COMYNS, R. J. and JONES, J. G. *Selling*. (New York: Alexander Hamilton Institute. 1927. Pp. xvii, 336.)

CORNELL, W. B. and MACDONALD, J. H. *Fundamentals of business organization and management*. (New York and Cincinnati: American Book Co. 1927. Pp. vii, 472.)

DICE, C. A. *The stock market*. (Chicago: Shaw. 1926. Pp. xiv, 667. \$4.)

This book is primarily a description and explanation of the methods of buying and selling stocks and bonds on the New York Stock Exchange. Two classes of readers are held in mind,—traders and investors on the one hand, and college and university students in courses on finance on the other. The book itself is the partial result of a university course given on the subject by the author. The first part of the book is devoted largely to a discussion of the machinery of the stock market; then follows a group of chapters which describe the method of operation employed by different types of traders and investors; a third section of the book describes current methods of forecasting both minor and major stock movements; the last chapter presents various methods of analysis of the values and earning power behind stocks. An excellent appendix on stock market terminology completes the book.

The most valuable part of the book is probably that devoted to the description of the machinery of the exchange and the methods of buying and selling. Concrete examples are given which make plain the methods of trading. Listing of securities, classes of brokers, purchasing on a

margin, the short sale, the stop-loss order, rights and their market, and transfer of stocks are all fully described. The final chapters on price averages, forecasting prices and movements, and methods of rating securities are all expositions of familiar theories more or less accepted, and need supplementing by further readings. The book should be of value for the investor and for class use.

GEORGE MILTON JANES.

DIEMER, H. *Foremanship training*. (New York: McGraw-Hill. 1927. Pp. 230. \$2.50.)

DOUBMAN, J. R. and WHITAKER, J. R. *The organization and operation of department stores*. (New York: Wiley. 1927. Pp. 301. \$3.50.)

DUTTON, H. P. *The business and its organization*. (Chicago and London: Shaw. 1927. Pp. viii, 129.)

———. *Purchasing*. (Chicago and London: Shaw. 1927. Pp. viii, 114.)

ESQUERRÉ, P. J. *Accounting*. (New York: Ronald. 1927. Pp. x, 369. \$4.50.)

FAY, C. N. *Business in politics: suggestions for leaders in American business*. (Cambridge: Cosmos Press. 1926. Pp. xi, 174.)

FRANCIS, G. M. *Financial management of farmers' elevators: a study in the principles of corporate finance as applied to grain marketing companies*. (Chicago: Shaw. 1926. Pp. x, 109.)

This monograph obtained the second prize offered by the Chicago Trust Company in 1925. The object of the study is to point out relative advantages and disadvantages of local farmers' associations and centralized terminal organizations in the marketing of grain. The author notes that the farmers' elevator movement is now "at a period when it can be of greatest service in promoting a stronger coöperation among grain producers." The treatment covers the history of farmers' elevators, their financial structure, financial basis of credit and their liability for federal income tax. The accounting ratios of elevator companies are analyzed. A three page bibliography is appended.

GILLMAN, J. M. *Rent levels and their causes*. (Pittsburgh: Univ. of Pittsburgh. 1926. Pp. xiii, 74. \$1.)

The purpose of this study was to ascertain what factors have been responsible for raising and maintaining the rents for all forms of housing in Pittsburgh since the year 1920. The material, with but slight changes, was previously published in two bulletins as University of Pittsburgh Studies in Business Administration, to which Parts 1 and 2 of the present volume correspond.

In Part 1 the levels of residence rents in Pittsburgh are compared with (1) the rents in the other fourteen largest cities in the United States, (2) its own previous normal rent level, (3) the cost of other items of the family budget. The conclusion is reached that post-war residence rent levels have been high as judged from each one of these three points of view.

In Part 2 an evaluation is made of several assignable causes which have been responsible for the present rent situation in Pittsburgh. The most important factors which may have combined to bring about this situation

are (1) the housing supply, (2) the cost of building construction, (3) speculation, (4) inflation, (5) the nature of the rent contract. Other less vital factors, which nevertheless aggravated the situation, are discussed, such as lack of rapid transit facilities and high interest charges on second mortgages. The author's conclusion is that "the rise in rents in Pittsburgh since 1920 cannot be explained on the basis either of a current housing shortage, or on the basis of increased construction costs, or on the basis of the shift in type of construction, whether measured in terms of materials, the size of dwellings, or cost classes."

Analysis of the remaining major factors leads to the conclusion that the wave of real estate speculation which was brought on by war-time shortage of housing facilities, together with the post-war tendency towards inflation of real estate values, were largely responsible for the unprecedented rise in rent levels which Pittsburgh has experienced since 1920. Speculation and inflation, in turn, are greatly encouraged by the Pittsburgh practice of dating annual leases from one day of the year only, as well as by exorbitant interest charges on second mortgage money.

Recommendations for certain methods of control are made in the latter part of the work. Modification of the May 1st annual lease contract practice, and provision for community or coöperative financing, are the two proposals which are advanced for remedying the existing rent situation. Another partial remedy suggested is the provision of rapid transit facilities between the industrial districts and the outlying sections of the city.

Most of the volume is necessarily taken up by factual material, which is rather effectively presented in the form of numerous tables and diagrams. Students of urban land economics, housing, and real estate will find this study of special interest.

W. H. TEN HAKEN.

GREELEY, H. D. *Professional co-operation between accountants and attorneys*. Official pubs. vol. VIII, no. 18. (New York: National Assoc. of Cost Accountants. 1927. Pp. 13.)

GREER, H. C. *Delivery costs in the Ohio wholesale grocery trade, year 1925*. Special bull. (Columbus: Bureau of Business Research, Ohio State Univ. 1927. Pp. 21, mimeographed.)

GRIMES, W. A. *Financing automobile sales by the time-payment plan*. (Chicago: Shaw. 1926. Pp. x, 116.)

This monograph was awarded a prize offered by the Chicago Trust Company. It is a scholarly investigation of installment selling which has been adopted by a large part of the automobile trade in its financing. The author recognizes the defects in current methods and in the last chapter considers both these and the services which the "automobile sales bank" or finance company renders. There is a two-page bibliography.

HALLINAN, C. T. *American investments in Europe*. Europa Handbooks. (London: George Routledge. 1927. Pp. 83.)

HARING, H. A. *Corporations doing business in other states*. (New York: Ronald. 1927. Pp. x, 302. \$5.)

A description of the procedure to be followed by a corporation in a state other than in the state from which it has received its charter. The author describes the formalities to be followed, penalties for non-compliance,

and fees and taxes to be paid. The meaning of "doing business" is explained in chapter 3. Thirty forms of reports and certificates are included.

HOFFMAN, G. W. *Hedging by dealing in grain futures*. A thesis. (Philadelphia: Univ. of Pennsylvania. 1925. Pp. 141.)

Describes the historical development of hedging; the theory; limitations of hedging; its extent. A bibliography of ten pages follows. Diagrams and tables clarify the subject.

HOOPINGARNER, N. L. *Personality and business ability analysis*. (Chicago: Shaw. 1927. Pp. 89. \$3.)

This volume is intended to be a manual for personal diagnosis. The author selects twelve personality traits which are involved in every occupational career, and gives tests intended to measure these traits. The concluding pages comprise a questionnaire concerning early interests, training, experience, vocational preferences, avocational interests, and ultimate aspirations.

This manual will undoubtedly stimulate thought and assist in vocational insight. But it has certain definite weaknesses: the author gives no information concerning the reliability or the validity of the tests or rating-lists; there are no norms for different occupations; and, consequently, the person taking the tests has no exact idea what his score means. Research would probably require a considerable revision of the author's scheme; but it would give us an instrument of known value. Without such research these tests are scientifically and practically useless.

C. L. STONE.

JASON, S. J. *Elements of bookkeeping and accounting*. (New York: Globe Book Co. 1927. Pp. 200. \$1.16.)

JOB, L. B. *Business management of institutional homes for children*. Contribs. to educ. no. 215. (New York: Teachers Coll., Columbia Univ. 1926. Pp. 203.)

KENT, F. C. *Mathematical principles of finance*. Second edition. (New York: McGraw-Hill. 1927. Pp. xiii, 214. \$4.)

A revised edition of an earlier text, which covers the fundamental principles of the theory of interest and annuities, and gives applications to valuation, depreciation, amortization, and other elements of finance. In this new edition particular attention is paid to methods of interpolation; simplified and more numerous problem solutions are given to illustrate the facility and adaptability of interpolation to the problems of finance. Minor changes have been made in other parts of the text with a view to increasing its lucidity and correcting misleading statements. New, recently completed ten-place interest and annuity tables may be obtained with the text or in a separate volume as desired.

KNIGHTS, C. C. *An outline of sales management*. (New York: Pitman. 1926. Pp. 195. \$1.50.)

KOHLER, E. L. and MORRISON, P. L. *Principles of accounting*. (Chicago: Shaw. 1926. Pp. xv, 446. \$3.)

This book is designed for use in a first year course in accounting. The authors have admittedly attempted to give somewhat more emphasis to considerations which have significance in practice than most recent textbooks in the field.

The first chapter provides a very helpful orientation for the accounting field. The analysis of the relationship between accounting and economics emphasizes the significant differences in viewpoints which, for the benefit of the student, might well be suggested also in textbooks in economics. In Part 4 the authors discuss the special problems involved in accounting for proprietorship equity, funded debt, manufacturing operations and changes in personnel in proprietorship or partnership. The final chapter is given over to the analysis and interpretation of financial statements with emphasis upon the relationships of significant accounting balances as evidences of financial status and operating results. The authors are to be especially commended for their definite and precise treatment of the problems of classification.

The discussion of principles and procedure is supplemented by a practice set which is designed to lead the student through four months of business transactions including a change from partnership to corporate form of organization. In addition, the authors have included sixty-two problems for written assignment arranged with reference to the chapters of text discussion. The book is generously supplied with illustrative material in the form of journal entries, ledger accounts and statements. The effectiveness of these illustrations has been assured by an excellent job of bookmaking. The rulings, spacings and arrangement of items are worthy of special comment.

JAMES P. ADAMS.

_____. *The technique of salesmanship: a textbook of commercial travelling and specialty selling.* (New York: Pitman. 1927. Pp. 258. \$1.50.)

KREBS, W. S. *Outlines of accounting.* Vol. II. (New York: Henry Holt. 1927. Pp. xxvii, 1049. \$5.)

LACY, M. G., and others, compilers. *Price fixing by governments.* 424 B. C.—1926 A. D.: a selected bibliography. Agric. econ. bibliography no. 18. (Washington: Supt. Docs. 1926. Pp. 149, mimeographed.)

LAIRD, D. A. *The psychology of selecting men.* Second edition. (New York: McGraw-Hill. 1927. Pp. xiii, 345. \$4.)

The original volume discussed the letter of application, the interview, character-reading, and psychological tests of intelligence as possible instruments for selecting men. Four new chapters have been added in the revised edition, treating the limitations of intelligence tests and suggesting measurements of significant social variables. Among the illustrative material is a social intelligence test which represents a pioneer attempt in this field.

C. L. STONE.

LLOYD, E. *Successful financing of the home.* Second edition. (Los Angeles: Los Angeles Herald. 1926. Pp. 500. \$1.)

LOCKLIN, D. P. *Regulation of security issues by the Interstate Commerce Commission.* (Urbana: Univ. of Illinois. 1927. Pp. 190. \$1.50.)

Study covers the period 1920-1925. The analysis includes the topics: capitalizable assets; valuation for purposes of capitalization; overcapitalization; control over stock-watering operations; control of indebtedness; reorganization cases; sale of securities; stock of no par value; and stock dividends.

LONG, J. D. and FARWELL, J. E. *Fundamentals of financial advertising, for banks, trust companies, investment banks, building and loan associations and other financial institutions.* (New York: Harper. 1927. Pp. 280. \$4.)

This book is designed particularly for banks, trust companies, and other financial institutions. Among chapter headings are window display advertising, magazines, signs, radio and motion pictures. Special consideration is given to the methods developed in commercial banks, savings banks, savings and loans associations and rural banks.

LYON, L. S. *Salesmen in marketing strategy.* (New York: Macmillan. 1926. Pp. xi, 422.)

The purpose of this volume is explained in the preface as follows: "This book may be of use to three classes of readers: college and university students, sales managers and salesmen, and economists. Economists, because of their increasing interest in realism may find in it some aid in an adequate explanation of how values are made and exchanges effected. They may safely be left to use the book as their needs or wishes suggest. Sales managers may find some plans and thoughts new to them, but I believe that its greatest value to such readers is in its analysis of the task of constructing and using a sales force and the relating of the use of this tool to a wider marketing strategy. Sales managers may wish to use it as a handbook or as a text for sales manager's classes."

For teaching and study purposes a small amount of case material is included, and questions and problems are appended to each chapter. The text is free from padding.

MACDONALD, J. H. *Office management.* (New York: Prentice-Hall. 1927. Pp. xiv, 278. \$5.)

The author has drawn upon the experience of a large number of important companies, such as the Regal Shoe Company, R. H. Macy & Company, Liggett's Drug Store, Metropolitan Life Insurance Company, etc. He describes the organization of an office, physical factors in office layout, equipment and appliances, organization of the stenographic department, the order department, sales and purchasing office, the advertising department, credit and collection department, office costs and budgets, and training office employees.

McKINNEY, F. C. *Trust investments: general principles, statutes and decisions of the various states, including laws governing investments by savings banks in the leading states and a list of legal investments in Connecticut, Massachusetts and New York.* Second edition, revised and enlarged. (New York: Press of Trust Companies Mag. 1927. Pp. xix, 584.)

McMAHON, J. R. *Your house: how to finance, plan, build, remodel and keep up a home.* (New York: Minton, Balch. 1927. Pp. 316. \$3.)

MILLET, J. I. *Bank audits and examinations.* (New York: Ronald. 1927. Pp. 498. \$6.)

MITCHELL, C. E. *The capital market.* Address delivered before the fiftieth convention of the National Electric Light Assoc. June, 1927. (Atlantic City, N. J., National Electric Light Assoc. 1927. Pp. 12.)

NELSON, M. N. *Readings in corporation finance.* (New York: Ronald. 1927. Pp. ix, 612. \$5.)

Some eighty readings are grouped under thirty chapter headings. Among the titles are stocks, no-par value stocks, bonds, the trustee and corporate mortgage, collateral trust bonds, equipment obligations, convertible bonds, promotion, capitalization, sale of securities, customer ownership, short-term credit,—including banks, commercial paper houses and discount companies, financial statements, reserves and surplus, dividend policy, expansion and consolidation, failure, receivership and reorganization. Among the writers drawn upon are Moulton, Dewing, Bonbright, Rollins, Heilman, Lough, Hardy, Lincoln, Paton, Kester, and Reed. The selection is up-to-date; and the volume should prove serviceable for those desiring collateral reading.

OSWALD, J. C., editor. *How to buy printing profitably: a manual of practical suggestions.* (New York: Employing Printers Assoc., Printing Crafts Bldg. 1927. Pp. 139.)

PEARSON, C. W. *Drug store business methods: a textbook on commercial pharmacy.* (Philadelphia: Lea & Febiger. 1926. Pp. 296. \$2.75.)

PICKEN, J. H. *Advertising.* (Chicago and London: Shaw. 1927. Pp. viii, 116.)

_____. *Principles of selling by mail.* (Chicago: Shaw. 1927. Pp. 374. \$6.)

RAINE, W. P. *Elements of business law.* (Washington: Hayworth Printing Co. 1927. Pp. xxi, 476.)

RICHARDSON, F. W. *The new check list of auditing and bookkeeping.* Sixth edition. (New York: Accounting Systems Co. P. O. Box 236, City Hall St. 1927. Pp. 100. \$1.50.)

ROBBINS, C. B. *No-par stock: legal, financial, economic and accounting aspects.* (New York: Ronald. 1927. Pp. xi, 228. \$4.)

This study is by an instructor at Stanford University, and represents a long and thorough investigation. The subject is considered from various points of view: accountancy, corporate directors, creditors, stockholders, and public interest. The advantages and disadvantages of no-par stocks are impartially presented for each of the 38 states now permitting such issue. The volume is annotated with numerous notes and references; and in the appendix is a seven-page bibliography, and a synopsis of state no-par stock laws.

ROLLINS, M. *Money and investments.* Seventh edition, revised and enlarged by BENJAMIN FISHER. (Boston: Financial Pub. Co. 1926. Pp. 514. \$3.)

SCOVELL, C. H. *Cost accounting practice with special reference to machine hour rate.* Official pubs. vol. VIII, no. 19. (New York: National Assoc. of Cost Accountants. 1927. Pp. 22.)

SEABROOK, B. R. *Seabrook's business manual on handling computations: a series of practical mathematical tables and useful data adapted to all kinds of businesses, manufacturing concerns and professional trades.* (Mishawaka, Ind.: B. R. and E. A. Seabrook. 1927. Pp. 616.)

SIMMONS, E. H. H. *New York stock exchange: report of the president, May 1, 1926—May 1, 1927.* (New York: N. Y. Stock Exchange. 1927. Pp. 78.)

SLOAN, L. H. *Security speculation: the dazzling adventure. A statistical study of the gainful possibilities of two important types of stock market operation.* (New York: Harper. 1926. Pp. 280. \$3.50.)

The title of this work suggests the romantic; the text is a serious and painstaking statistical study. It sets out to "report and explain certain statistical tests," dealing chiefly with two important types of stock market operation—the "long swing" and the "long pull." The author makes a strong case for the superior profit opportunities of the first type—the completion of several market turns within a period of years, at prices only approximating the low and high points, respectively, of purchase and sale—rather than the holding of securities, purchased at an absolute low, through several long swings and their final sale at approximately the top.

Much of the book is based on *ex post facto* premises and on hypothetical performance. It thus of necessity omits what is perhaps the most important factor in actual speculation—the psychological. Nevertheless the results and many of the author's comments are worth the attention of the speculator, or the investor. The author is careful to disclaim any attempt to lay down an easy formula for successful operation in the stock market. It is a book for the student rather than for the casual reader.

LUTHER CONANT, JR.

SPEARMAN, C. E. *The abilities of man: their nature and measurement.* (New York: Macmillan. 1927. Pp. 454. \$4.50.)

THORLEY, R. F. and STICKNEY, W. H. *Real estate forms.* (New York: Prentice-Hall. 1926. Pp. x, 332. \$5.)

Illustrated with actual reproduction of sales, rent, management, maintenance, brokerage, appraisal, and coöperative forms. Also legal forms dealing with leases, contracts, deeds, bonds, mortgages, building and loan agreements, and acknowledgements.

TOSDAL, H. R. *Market planning.* (Chicago and London: Shaw. 1927. Pp. vii, 103.)

———. *Sales organization and operation.* (Chicago and London: Shaw. 1927. Pp. vii, 117.)

WEDDIGEN, W. *Theorie des Ertrages.* (Jena: Fischer. 1927. Pp. x, 240. M.12.)

WHITE, P. *Scientific marketing management: its principles and methods.* (New York: Harper. 1927. Pp. 318. \$4.)

WILLOUGHBY, W. F. *The legal status and functions of the general accounting office of the national government.* (Baltimore: Johns Hopkins Press. 1927. Pp. xi, 193. \$3.)

Bell Telephone securities: reference tables and descriptions. (New York: Bell Tel. Sec. Co., 195 Broadway. 1927. Pp. 57.)

Classified periodical list. This list tells you which of 400 business magazines deal with your business. (Newark, N. J.: Business Branch, Public Library. 1927. Pp. 16.)

Defaulted debts of the Southern States of the United States of America.
Extract from *Annual Reports of the Corporation of Foreign Bondholders.*
(London: Council House, 17 Moorgate. 1925. Pp. 32.)

The disposition of income in public utility companies. Bull. no. 13.
(Urbana: Univ. of Illinois. 1927. Pp. 42. 50c.)

The evolution of overhead accounting. Part 1. *Basic principles in the treatment of manufacturing overhead.* Part 2. *Designing the overhead structure.* (Washington: Chamber of Commerce of the U. S., Dept. of Manufacture. 1927. Pp. 30.)

Improving manufacturing facilities. I. *General.* II. *Technical.* (Boston: Boston Chamber of Commerce, Bureau of Commercial and Industrial Affairs. 1927. Pp. 52, 58. 50c. each.)

The New York Curb Market. (New York: N. Y. Curb Market. 1927. Pp. 26.)

Retail store problems. Domestic commerce series, no. 9. (Washington: Supt. Docs. 1926. Pp. iv, 140. 20c.)

Capital and Capitalistic Organization

NEW BOOKS

HILFERDING, R. *Das Finanzkapital. Eine Studie üb. d. jüngste Entwicklung d. Kapitalismus.* Marx-Studien, Band III. (Berlin: J. H. W. Dietz. 1927. Pp. xii, 477.)

LEVY, H. *Monopole, Kartelle und Trusts in der Geschichte und Gegenwart der englischen Industrie.* Second rev. ed. (Jena: Fischer. 1927. Pp. xiv, 328. Rmk. 13.50.)

OPPIKOFER, H. *Des Unternehmensrecht in geschichtlicher, vergleichender und rechtspolitischer Betrachtung.* (Tübingen: Mohr. 1927. Pp. xi, 148. M. 7.20.)

The growth of modern industry and business demands that legislation shall be developed to cover the rights of syndicates and trusts which are not covered by the laws relating to the rights of individuals.

SAITZEW, M. *Horizontal und Vertikal im Wandel der letzten Jahrzehnte.* (Jena: Fischer. 1927. Pp. 36.)

The object of business combinations, the means to attain their object, and their character whether horizontal or vertical, illustrated by many graphs.

SPURR, H. C., editor. *Public utilities reports, containing decisions of the public service commissions and of state and federal courts.* (Rochester: Public Utilities Reports, Inc. 1926. Pp. xxxix, 995.)

THOMPSON, S. D. and THOMPSON, J. W. *Commentaries on the law of corporations.* Vol. I. Third ed., rev. by E. F. WHITE. (Indianapolis: Bobbs-Merrill. 1927. Pp. xxv, 1004.)

WILCOX, D. F. *The indeterminate permit in relation to home rule and municipal ownership.* (Chicago: Public Ownership League of America. 1926. Pp. 99. \$2.)

Briefly, it is the contention in this "report" that the indeterminate permit, in its usual form, has failed both as a means of securing good

public utility service at proper rates and as a means of facilitating the transition to public ownership. This failure is attributed to the lack of effective guarantees of good behavior. "Under the indeterminate permit, the companies are in to stay, and their good or ill behavior has little or nothing to do with it." For the device to function, local opinion should "rid itself of the controlling obsession against public ownership;" and means of making the threat of public purchase more than a "stuffed club" should be available.

The book can be recommended as stimulating reading for anyone interested in utility regulation. Some may ask for factual demonstration that security of tenure has, in a broad view, worked against the public interest; others may question the economic significance of the suggestion of an amortization program, one that is not merely "tentative, optional or infinitesimal;" and others may question Dr. Wilcox's disbelief in state regulation. Throughout, there is abundant evidence of the author's long, first-hand contact with franchise and other utility problems.

C. S. MORGAN.

Investigation into the Proprietary Articles Trade Association, an alleged combine of wholesale and retail druggists and manufacturers established to fix and maintain resale prices of proprietary medicines and toilet articles. (Ottawa: H. M. Stationery Office. 1926. Pp. 37.)

An attempt to show that this association "has operated and is likely to operate to the detriment of or against the interest of the public."

1926 proceedings: comprising federal and state commissions regulating railroad and other public utilities. (New York: National Assoc. of Railroad and Utilities Commissioners. 1927. \$5.)

Labor and Labor Organizations

The Woman Worker and the Trade Unions. By THERESA WOLFSON. (New York: International Pubs. 1926. Pp. 224.)

The organization of women is one of the major problems confronting trade unions in industries employing women. This is admitted by the leaders who have shied away from the responsibilities involved as well as by those who have grappled with them and come away discouraged. The fresh attack of a vigorous, young student of labor, herself an active participant in the labor movement, is welcome. It is the fullest and ablest treatment of the subject which has yet appeared.

In the light of the failures and the perplexities attending the efforts to organize women, Miss Wolfson puts the question whether these have been occasioned by the constitutional inability of women to work with the tools which the trade unionist must use, or whether the methods which have been employed to enlist the energies of women are those from which success could not reasonably have been expected. She has found that some trade unions are without any thought-out and formulated policy. They have not taken into account the background of tradition, race, and culture of the women workers; and they are not really aware of the actual economic status of women in industry today.

In order to throw light on this status, Miss Wolfson proceeds to discuss the distribution of women in American industries according to the nature of the occupations they perform and the wages they receive. The question of the degree of economic freedom they achieve, however, proves to be one to which no definite or general answer can be given. It is pointed out that women's economic status is in part determined by the great waste in adjusting them to their jobs. The poor adjustment is caused by the tradition of women's inferiority and the assignment of "women's work" to women instead of distributing jobs according to the mental and physical fitness of the individuals for them. In this connection the reader has the opportunity to contrast the scientific determination of relative efficiency of men and women for particular jobs made by keeping quantity and quality out-put records at the Cheyney Silk Mills with certain trade union practices. A number of unions prohibit occupations in certain trades by the device of making women ineligible for membership, or by admitting them but not allowing them to pass beyond the apprenticeship or helper's stage.

The most substantial contribution of the whole study, one which is of value to students of trade union history, is made in the chapters dealing with the constitutional bars and limitations fixed by the American Federation of Labor and by the national unions. Here has been gathered together first-hand material which is not easily accessible elsewhere.

It is still commonly assumed that the business of making a living is "fundamentally a man's business." This assumption underlies the fact that "the trade union, the economic weapon of all workers, is found masculine in sex." The official trade union attitude toward women as exhibited in the resolutions of the individual unions, the Knights of Labor, and the A. F. of L. is traced in detail. The account is, unfortunately, not fully documented. It appears that the A. F. of L. policy has been decidedly more liberal than that of some of the constituent unions. In spite of this the Federation has made no serious move to organize women. It officially "stands for certain policies which it cannot carry out." It has failed to persuade the unions to admit women and to insist upon equal pay for equal work.

The national unions differ greatly in the extent to which they permit women to come in and to share in the responsible work of the union. "In those industries where women are comparatively newcomers, and the trade is considered a 'man's job' the bars of the union are up. On the other hand, in those industries where the women are preponderant, the bars are down." The Barbers' Union (not in conformity to this statement of tendency) is one in which the admission of women has been strongly opposed. The grounds advanced for this opposition were those most frequently given: inferiority of workmanship, inability to

organize, and "the tendency to create discord among the men, who, up to the time of her admission to membership, were real working brothers."

In seeking to answer the question: Can women be organized? the author discusses the factors upon which trade union success has depended in the past. The first of these is the permanency of the group. Although the work of the individual woman will always be more subject to interruption than that of a man, women workers do now constitute a permanent group and the individual women are about as likely to stay in it as men were a century ago. A second factor is the skill of the worker. Skill is still the basis of organization of most of the powerful unions. Women, almost all of whom are unskilled, encounter, in addition to the problems of organization which the unskilled men face, the bitter opposition of the men workers whose jobs they take as skills become dismembered. In the third place, the strategic position of the industry in which they work and the position of the worker in that industry make for success or failure in organization. Women, in this regard, are at a disadvantage; for they work in few "key" industries and they hold few "key" positions.

The final factor is the one which has engaged the major attention of the author: the tactics of organization. Here she sees the need of sweeping changes if women are to be organized in increasingly large numbers. She discusses the plan of the local composed of women members exclusively and gives it only qualified approval. Social, recreational, and educational activities of the unions as they are related to the problem of the organization of women are taken up and illustrated by the experiences of particular unions. The main stress throughout is on the need for a better comprehension of the psychology of the group to be organized and to be kept organized. Women have contributed a much needed idealism to the movement; they have made incomparably good strikers and they have engaged with success in all union activities; but they have found it difficult to submit to some of the union discipline. Their sensitiveness and their emotional stress have brought both gains and losses to the rough and ready life of the union. On the whole, the gains have outweighed the losses and it is the conviction of the author that women *can* be organized if appropriate tactics are adopted.

The value of the book is not seriously impaired by some slips in workmanship which, happily, have fallen in unimportant places; but one could wish for a more accurate tool in the hand of the writer. The use of figures and dates is often casual, as in speaking of "the ten or fifteen years of existence" of the national Women's Trade Union League, (p. 105) an organization of prime importance in the field of study. Later, (p. 129) we are told that the same organization was

established in 1903! In one or two instances sources are misquoted, as in the case in which the first congress of the International Federation of Working Women in 1923 is mentioned as having taken place in Geneva (p. 151) instead of Vienna. Doubtless the out-put studies at the Cheyney Silk Mills would have been as useful if carried on "in Pennsylvania" (p. 49) instead of in Connecticut; but the change of base may occasion some surprise to Mr. Horace B. Cheyney, whose article is cited. The attempt to present census statistics in Chapter 2 lacks the clearness necessary to make some of the points effective. The brief bibliography is without full imprint.

AMY HEWES.

Mount Holyoke College.

Some Problems of Wages and Their Regulation in Great Britain since 1918. By ALAN G. B. FISHER. (London: P. S. King. 1926. Pp. xvii, 281. 12s. 6d.)

Better wages with other working conditions to match, to be arrived at by fairer and more orderly methods than those used hitherto, were a prominent feature of the apocalyptic visions indulged in by British statesmen and others during the later years of the war and the early years of reconstruction. Dr. Fisher's book portrays some of these hopes and expectations (particularly those centering in the political campaign of December, 1918, and the great National Industrial Conference of employers and employees early in 1919); gives an account of the efforts made by the British government from 1918 to about 1924 to bring about the more prompt and peaceable adjustment of wages in different industries; and discusses the principles and considerations that guided and influenced the various boards and arbitral bodies in making their awards.

The author begins with the Committee on Production, presided over by Sir George Askwith, which dealt with more than half of all labor disputes submitted to arbitration during the war period itself, and which was, in a way, the parent of bodies that followed. Its work was extended for a year after the armistice through the Interim Court of Arbitration; and its mantle later fell upon the Industrial Court and the Courts of Inquiry provided for in the act of 1919. This latter act was intended to put things upon a more permanent basis by establishing a standing tribunal of professional arbitrators to which parties in dispute could voluntarily resort, and by giving the ministry power in their discretion to have any dispute investigated by a special court of inquiry. In the railway industry the Central Wages Board, with the National Wages Board as a reviewing body, was organized also in 1919 and incorporated in the Railways act of 1921. The Trade Boards operating in various unorganized and underpaid

industries under the acts of 1909 and 1918, while not dealing usually with open ruptures, had many of the same problems regarding where and how wages should be fixed, and are thus included here. Chapters are also devoted to some of the international aspects of wage and hour adjustments growing out of the Treaty of Versailles, and to the settlement of the mining dispute in 1921.

The principles or criteria upon which these boards have acted in making their decisions, while not always fully divulged in the decisions themselves, constitute the main subject matter of the book. They are such as are already familiar to American students who have followed the work of the Kansas Court of Industrial Relations, the recently deceased Railway Labor Board, and similar bodies on this side. The author, in fact, makes rather frequent reference to American and Australasian parallels. The Committee on Production, whose chief function during the war was to "hold down the lid" and maintain an uninterrupted output of munitions and other necessary commodities, did not feel called upon to do much theorizing or even to explain its grounds. But the Industrial Court, of which Sir William Mackenzie was chosen president, aspired, at least in the enthusiasm of its youth, to develop and expound a code of "industrial common law."

The chief effort here as everywhere during the period covered has been to adjust wage levels to fluctuations in the cost of living. Since governmental financial policy was largely responsible for the difficulty, it was regarded as particularly appropriate that governmental organs assist in the process, the more so because machinery for collective bargaining was either lacking or temporarily in abeyance. By the end of 1922, the author estimates, cost-of-living sliding scales had been agreed upon by which the wages of nearly three million British workers were quite automatically determined without further negotiations being necessary.

As prices tended to decline instead of to rise after 1920, and as the depression came on, the Industrial Court and other bodies naturally began to lay more stress upon other matters. The phrases "condition of the industry," "state of the market," and "relative wages in other trades and industries," appear more frequently in the awards. And all of these have been even more intangible than the cost-of-living factor. Before the Trade Boards in particular it has been argued that the ability of the industry to pay is not to be judged too hastily or superficially, since the necessity of paying better wages often stimulates to long needed improvements in management and methods. The writer does not find that the so-called profit-sharing principle introduced in the coal mine agreement of 1921 worked out to the advantage of the miners. It had the same weaknesses as the closely similar method of setting wages according to the selling-price of the product which had

formerly prevailed in the coal industry and which still prevails in the iron and steel trades.

The place assigned by Dr. Fisher to arbitration and other outside help or interference in the settlement of labor disputes, is very properly a minor one. Little, he thinks, can be said for compulsory powers. The use made of the Industrial Court after 1921 materially declined, although there was a noticeable revival in 1924 during the Labor Government. The role of such bodies must continue to be that of conciliation and interpretation under particularly trying and changeable conditions—a supplement to, but in no sense a substitute for, collective bargaining.

In reading the book one soon becomes convinced that the chapter headings are regarded by the author as only points of departure, not in the least intended to forbid the pursuit of attractive side issues. The organization might have been improved if a logical rather than a semi-chronological order had been followed.

WARREN B. CATLIN.

Bowdoin College.

Wages and the State. By E. M. BURNS. London School of Economics and Political Science Studies No. 86. (London: P. S. King. 1926. Pp. ix, 443. 16s.)

The author's purpose is to discover the extent of legal regulation of the price of labor, the nature of the various systems that have been instituted, and the fundamental problems involved. To accomplish this general purpose the author has made a thorough examination of the legal minimum wage laws of Australasia, Europe, the United States and Canada. The provisions of these statutes and the difficulties confronted in their administration are carefully analyzed.

The modern movement for legal regulation of wages is appraised from the outset as a desirable antithesis of the traditional principle of laissez-faire. Demand and supply cannot always be trusted to yield the maximum social advantage, partly because the wage set by these forces may be so low as to cause the loss of economic welfare to the poorest section of the community, and hence to the community in general; and partly because the bargaining process is likely to be so involved and bitter as to occasion frequent interruptions of work by strikes and lockouts. State regulation of wages in poorly paid trades would seem, therefore, to be socially desirable. Such control has had two dominant objectives: an increase of income for the less fortunate members of the community, and the elimination of industrial unrest.

The author's analysis of the extent to which these objectives are attainable through minimum wage legislation is remarkably well done. The level of wages in any country is seen as the resultant of many

factors, such as the productive capacity of the community in general, the ability of employers in giving trades, the economic status of particular industries, and the relative efficiency of individual workers. Low general productivity on the part of the community, which inevitably results in low wages, may be caused by numerous conditions which cannot be ameliorated by legal action. These conditions include poor qualities of soil, natural resources, and climate; poor quality of the labor supply; a relative scarcity of capital; and over- or under-population. Low productivity due to poor organization and management of industry is not so clearly outside of the limits of relief through law. Here the higher rates of wages fixed by statute or administrative edict may result in a much needed reconstruction of the industry and hence make higher wages permanently possible. Where an industry is in a declining state, due to the falling off in demand for its products, the workers can expect no lasting benefit from a legal minimum wage because the demise of the industry is inevitable. Nor is it likely that a legal minimum wage will *per se* increase the efficiency of individual workers, unless past inefficiency has been due to poor nourishment or the consciousness that there is no equitable relation between work and pay. Throughout this part of the discussion there is a frank recognition of the economic limitations of legal regulation of wages and an apparent concession that the most the workers can ever get is the full competitive rate.

With regard to the elimination of industrial unrest through the enactment of minimum wage laws the author's conclusion is largely negative. In so far as unrest is due to the existence of low wage scales, a higher level of wages set by law will tend to have an appreciable effect in removing it. But on the whole, low wages may be a relatively unimportant cause of industrial discontent, since the poorest paid workers usually do not possess either the resources or the energy to organize and strike. The deeper courses of unrest, such as dissatisfaction with the present economic system, repression of fundamental human instincts, and the absence of any close correlation between work and pay, will not be removed by the enactment of minimum wage laws. Indeed, much of the current industrial unrest is found among the best paid workers.

The efficacy of state regulation of wages in increasing the worker's remuneration and in alleviating social discontent is evidently problematical; and one does not receive much encouragement in this matter from the present analysis. There are many reasons for the failure of minimum wage laws to produce desired effects. Thus far, as the author painstakingly points out, there has been no general agreement as to the most desirable basis for the minimum. The terms "living wage," "fair wage," and "wage which the trade will bear," are vague

and their quantitative determination is extremely difficult. A primary responsibility in every country, therefore, is the careful choice of a principle of determination which is adapted to particular cases. No principle is universally applicable as to time and place. Additional reasons for failure have been the absence of effective machinery of enforcement and the inability or unwillingness to choose administrative officers who are really representative of the industry under regulation.

In spite of these obstacles the author is convinced that the legal minimum wage will persist for the following reasons: the modern community is becoming more solicitous of the welfare of its less prosperous members; and the economic and political power of organized labor is such as to preclude a return to the old freedom of industry. Friends of minimum wage legislation in the United States may find it difficult to share the author's optimism, at least as far as this country is concerned. But his conclusion is based on what will generally be accepted as the best analytical study of the legal minimum wage yet made.

GORDON WATKINS.

University of California.

NEW BOOKS

ADAMS, W. W. *Coal-mine fatalities in the United States: 1925.* U. S. Dept. of Commerce, Bureau of Mines, bull. 275. (Washington: Supt. Docs. 1926. Pp. vii, 129. 20c.)

ATZLER, E. *Körper und Arbeit. Handbuch der Arbeitsphysiologie.* (Leipzig: George Thieme. 1927. Pp. xii, 770. M. 42.50.)

Anatomy and physiology of the body in relation to work; metabolism; fatigue; tests of the bodily organs. Such are some of the headings of this very comprehensive work.

COOMBS, W. *The wages of unskilled labor in manufacturing industries in the United States, 1890-1924.* (New York: Columbia Univ. Press. 1926. Pp. 162. \$2.25.)

This carefully compiled index of the full-time weekly earnings of unskilled labor is an excellent contribution to the literature of wage statistics. Dr. Coombs has pieced together the data on the wage rates and earnings of the unskilled workers in over a score of manufacturing industries and has combined them into an index for manufacturing as a whole. The average which Dr. Coombs finds for the nineties is almost exactly 20 per cent less than that for 1913, while the 1920 average is 146 per cent more. The index for 1924 is 106 per cent above the 1913 base.

Dr. Coombs turns these indexes of money wages into real earnings by dividing them by a cost of living index which up to 1913 is that computed by Hansen (and which includes clothing, house furnishings and fuel and light, as well as food) and which for the subsequent years is that of the Bureau of Labor Statistics. This shows a decline in the real earnings of the unskilled workers up to 1915 and an increase since that year. The decrease from the level of the nineties to 1914 was indeed no less than 13 per cent. Virtually all of this decrease apparently took place after

1906. It was not, indeed, until 1916 that the real wages of the unskilled began to rise when the increase in a single year amounted to the unprecedented figure of 14 per cent. Increases are also shown for 1917, 1918 and 1919; the index in the latter year amounting, in terms of a 1913 base, to 119. This was indeed but one point less than the index for 1924.

When Dr. Coombs' study is compared with other recent investigations of wages and earnings, the following tentative conclusions seem to be justified: (1) During the years from 1900 to 1915, unskilled labor on the whole lost ground, whereas the real earnings of all employed workers remained relatively stationary. (2) Unskilled labor made much greater gains during the years 1916-1919 than labor as a whole. (3) Unskilled labor suffered a much more severe deflation during 1921 than the main body of workers.

PAUL H. DOUGLAS.

COX, J. D., JR. *The economic basis of fair wages.* (New York: Ronald. 1926. Pp. v, 139. \$3.50.)

The author's purpose is to aid in the solution of the struggle between "Capital" and "Labor" for an equitable distribution of the results of human effort "by bringing to both sides a better understanding of the economic laws affecting wages and the standard of living, and thus provide a common conception of what is just, fair and social conduct." His thesis is that no permanent gain in the standard of living of wage earners can result from higher general wage levels. Since all costs depend for their money value on the cost of labor, higher wages simply mean higher price levels and consequently no real gain. His conclusion is that as business profits are ordinarily kept within narrow limits by competition, wage earners receive the residual share of production, and the purchasing power of their wages is increased by every advance in the productive efficiency of industry. Statistical evidence that this has actually been the case throughout the last century is presented. The "natural law of supply and demand" in a system of freedom, largely attained in America, provides the proper basis for fair wages.

A. G. S.

FOERSTER, R. F. and DIETEL, E. H. *Employee stock ownership in the United States.* (Princeton: Princeton Univ., Dept. of Econ. and Social Institutions. 1926. Pp. viii, 174. \$2.)

Widespread interest in the increasing acquisition of stock by employees insures a welcome for this careful study by the directors of the Industrial Relations Section at Princeton. By May 1, 1926, there were at least 233 active plans for employee stock ownership in the United States.

There were only a few isolated employee stock ownership plans before 1900. The movement grew rapidly during the war. Its greatest development, however, has come since 1923. This growth is laid by the authors to the increase in the workers' income since the war, and to the improved investment status of corporate securities in recent years, due partly to greater industrial stability. They evidently do not believe that the experience of investing in Liberty bonds during the war has the significance commonly attributed to it in this connection. Employers have given the following reasons for selling stock to employees: saving is encouraged; the workers are given an opportunity to share in ownership;

their interest in work is aroused; labor turnover is diminished; and a wider distribution of ownership is secured. They assert that the sale of stock to their workers has improved industrial relations and given the workers a share in the success and profits of the business. The authors believe that the workers have generally made money on their investment. The cases in which they have been sold bad stocks are said to have been rare.

The thorough analysis of the plans is supplemented by two appendices, one containing lists of companies which have introduced employee stock ownership, and the other, which is 72 pages in length, giving excellent brief summaries of various plans. The outstanding value of this book lies in its classification, description, and analysis of a great mass of detail.

The concluding chapter considers various questions of individual and general policy involved in the movement. The authors here discuss briefly the implications of the movement, its present limitations, and the conditions necessary for its success. It is to be regretted that these matters were not more fully considered, for the discussion is intelligent and stimulating. Such important matters as the constructive possibilities of the movement, the opportunities it presents for ultimate workers' control, labor's attitude toward it, its effect upon labor mobility, the desirability of voting employee stock in a block, and the danger of increased separation of ownership and control cannot be adequately dealt with in a single chapter of 27 pages.

EDWARD BERMAN.

GOODHART, A. L. *The legality of the general strike in England.* (Cambridge, Eng.: Heffer & Sons. 1927. 1s.)

GRAM, C. H., compiler. *Handy reference to Oregon labor laws, 1927.* Fourteenth edition. (Salem, Ore.: State Printing Dept. 1927. Pp. 64.)

HENDERSON, A. *The government's attack on trade union law: an analysis of the Trade Disputes and Trade Unions bill, 1927.* (London: Trade Union Defence Committee, 33 Eccleston Sq. 1927. Pp. 23. 1d.)

LAIDLER, H. W. and THOMAS, N., editors. *New tactics in social conflict: a symposium.* (New York: League for Industrial Democracy, 70 Fifth Ave. 1926. Pp. x, 230.)

A stenographic report of the summer conference of the League for Industrial Democracy, held in 1926. The material is grouped under the following headings: "Changing relations between property ownership and control;" "Trade unions enter business;" "Changing tactics of employers toward the workers;" "The sweep toward industrial combination;" "American economic imperialism;" "The new propaganda;" and "Power, coal, and forests."

LAPORTE, H. A. *Mouvements de salaires depuis 1914.* (Paris: Société du Recueil Sirey. 1926. Pp. 175.)

McMAHON, T. F. *United Textile Workers of America.* Workers' educ. organiz., ser. no. 2. (New York: Workers' Educ. Bureau. 1926. Pp. 42.)

MILLS, C. M. *Vacations for industrial workers*. (New York: Ronald. 1927. Pp. viii, 328. \$5.)

OAKES, E. S. *The law of organized labor and industrial conflicts: dealing with labor unions, employers' associations, union labels, contracts between unions and employers, strikes, lockouts, boycotts, and questions incidental thereto, blacklisting by employers or workmen, interference with another's employment, injunctions in labor cases, conciliation and arbitration*. (Rochester, N. Y.: Lawyers Coop. Pub. Co. 1927. Pp. xxxii, 1333.)

RICHARDSON, J. H. *A study on the minimum wage*. (London: Allen & Unwin. 1927. 7s. 6d.)

ROBSON, W. A. *The Trade Disputes and Trade Unions bill: an analysis and commentary*. Fabian tract no. 222. (London: Fabian Society. 1927. Pp. 8. 1d.)

SOECKNICK, M. *Die Entwicklung der Reallöhne in der Nachkriegszeit*. Band XVIII, Heft 1. (Jena: Fischer. 1927. Rmk. 4.)

WATKINS, R. J. *Ohio employment studies*. Bureau of Business Research monograph no. 7. (Columbus: Ohio State Univ. Press. 1927. Pp. vii, 65. 50c.)

WEBER, A. *Arbeitskämpfe oder Arbeitsgemeinschaft?* (Tübingen: Mohr. 1927. Pp. 34. M. 1.20.)

A plea for the mutual understanding of capital and labor, for only so can the greatest amount of prosperity be attained and the danger of revolution and communism be avoided.

The enginemen's strike on the Western Maryland Railroad: a report. (New York: Federal Council of the Churches of Christ in America, 105 E. 22nd St. 1927. Pp. 128. 25c.)

Prepared and issued by the Department of Research and Education of the Federal Council of the Churches of Christ in America, the Social Action Department of the National Catholic Welfare Conference, and the Social Justice Commission of the Central Conference of American Rabbis.

Freedom of association: report and draft questionnaire. International Labour Conference, 10th session, item 2 on the agenda. (Geneva: Internat. Labour Office. 1927. Pp. 146.)

International survey of legal decisions on labour law: 1925. (Geneva: Internat. Labour Office. 1926. Pp. xii, 267. \$2.)

Labour organization in Canada: sixteenth annual report. For the calendar year 1926. (Ottawa: H. M. Stationery Office. 1927. Pp. 281. 50c.)

The labour year book for 1927. (London: Labour Publications Dept., 33 Eccleston Sq. 1927. 5s.)

Minimum wage-fixing machinery: report and draft questionnaire. International Labour Conference, 10th session, item 2 on the agenda. (Geneva: Internat. Labour Office. 1927. Pp. 159.)

Union-smashing by law. What the Tory government's trade union bill means. (London: Trade Union Defence Committee, 33 Eccleston Sq. 1927. Pp. 12. 1d.)

Money, Prices, Credit, and Banking

NEW BOOKS

- ADAMS, A. B. *Profits, progress and prosperity*. (New York: McGraw-Hill. 1927. Pp. ix, 178. \$2.)
- AFTALION, A. *Monnaie, prix et change. Expériences récentes et théorie*. (Paris: Soc. Anon. du Recueil Sirey. 1927. Pp. vii, 352.)
- ANDERSON, B. M. *The relation of international debt payments to domestic purchasing power*. Chase Econ. Bull., vol. VII, no. 2. (New York: Chase National Bank. 1927. Pp. 20.)
- ANDERSON, G. B. *The federal reserve check collection system. A thesis in finance*. (Philadelphia: Univ. of Pennsylvania. 1927. Pp. 72.)
- BABCOCK, J. N. *The relation of trust service to modern banking*. Address delivered at meeting of New York State Bankers Assoc., Washington, June 7, 1927. (New York: Equitable Trust Co. 1927. Pp. 17.)
- COYAJEE, J. C. *India's currency and exchange problems, 1925-1927*. (Calcutta, India: Book Co., 4/4A College Sq. 1927. Pp. 46.)

The author of this pamphlet is well known to American economists as professor of political economy of the Presidency College at Calcutta; and also as a member of the recent Royal Commission on Indian Currency and Finance. His object, in this collection of interviews and newspaper articles, is the rebuttal of the criticism of the Committee's *Report*, expounded in the able and persuasive *Minute of Dissent* by Sir Purshottamdas Thakurdas and propagated in the campaign of the Indian Currency League.

This controversy has raged chiefly over two points—the respective merits of 1s. 4d. and 1s. 6d. as the permanent value of the rupee, and the advantages and disadvantages of introducing gold coin into circulation in India. Professor Coyajee sustains the *Report* in arguing that Indian economy is virtually, if not completely, adjusted to the higher ratio; he also opposes a gold currency, partly on the grounds of the incalculable expense of its inauguration and partly because of deflationary influences on world prices involved in the subtraction of a considerable part of the world's reserve stock to provide coinage.

The question of the rupee ratio (a matter of 12½ per cent in the value of the currency) has aroused lively and, indeed, bitter controversy in India. That a difference relatively so slight should have been made the object of profound examination and thorough discussion in India presents an interesting contrast to the methods pursued in the stabilization of certain European currencies.

In our opinion the best note is struck in a passage in which Professor Coyajee passes from controversy to direct attack. "The true criterion of the merits of the *Report of the Royal Currency Commission* consists in the large number of long-standing controversies that would be set at rest, silenced, and made obsolete, were the recommendations contained in that report to be adopted. . . . I claim that regarded from one point of view, it is a most important step in the evolution of economic autonomy of India. . . . We are inclined to believe that even those who have dissented from the Committee's recommendations in detail, will agree with this estimate of its report as a whole.

R. B. WARREN.

- DUBOIN, J. *La stabilisation du franc.* (Paris: Marcel Rivière. 1927. 12 fr.)
- FELDMANN, G. *Le franc français depuis 1914.* (Paris: Eugène Figuière. 1927. Pp. 160.)
- FOSTER, W. T. and CATCHINGS, W. *Business without a buyer.* (Boston: Houghton Mifflin. 1927. Pp. xx, 205. \$2.)
- FRANCK, L. *La stabilisation monétaire en Belgique.* (Paris: Payot. 1927. Pp. 174.)
- FRANGULIS, A. F. *La Grèce et la crise mondiale.* Tome II. (Paris: Lib. Alcan.)
- GOODLIFFE, W. *Credit and currency, national and international.* (London: P. S. King. 1927. Pp. viii, 178. 8s. 6d.)
- HAGELBERG, E. *Entwicklung und Probleme der neueren Hypothekenpraxis.* Beiträge zur Kenntniss des Rechtslebens, Heft 4. (Tübingen: Mohr. 1926. Pp. iv, 105.)
- HAHN, L. A. *Zur Frage des volkswirtschaftlichen Erkenntnisinhalts der Bankbilanzziffern.* Sonderabdruck aus den Vierteljahrsheften zur Konjunkturforschung, Jahrg. I, Heft 4. (Berlin: Reimar Hobbing. 1927. Pp. 22.)
- HANTOS, E. *La monnaie: ses systèmes et ses phénomènes en Europe Centrale.* (Paris: Marcel Giard. 1927. Pp. 259.)

The title of the book is partly misleading. It is more than an analysis of the monetary systems of a number of European countries. It is a serious attempt to describe the effects of currency inflation on human activity. As a continental European, a practical banker, and a high government official in Hungary, the author had a good opportunity to study the effects brought about by inflation; and only a man who lived through the dreadful period of currency depression could have made the following observation:

"Inflation established two dangerous theories: To know that it is absurd to save, and that a debtor can live on the capital of his creditor."

The most interesting part of the book is Chapter 3, in which the author traces the effects of currency inflation. He analyzes the relation between inflation and currency depreciation and the effects of currency inflation on prices, production, distribution of income, and consumption. The main defect of this chapter is that it is too brief and lacks statistical backing. The presentation, however, is clear and his arguments and conclusions, in most instances, logical and convincing.

Chapter 4 deals with the return of Central Europe to the gold standard and gives a brief summary of the well known views of Keynes and Cassel. Chapter 5 summarizes the currency reforms in a number of Central European countries. Only a few new facts are presented. The last chapter is a plea toward cooperation among the various central banks of Europe.

M. NADLER.

- LACOURT, G. *Le retour à l'étalon d'or, la politique monétaire de l'Angleterre, 1914-1926.* (Paris: Payot. 1926. Pp. 246. 22 fr.)
- LAVELEYE, A. DE. *Stabilisation belge, revalorisation française.* (Paris and Brussels: Jouve et Cie. 1927. Pp. 92. 7 fr. 50.)

1927]

LEHFELDT, R. A. *Controlling the output of gold.* (London: General Press. 1927. Pp. 31. 1s.)

MANNSTAEDT, H. *Ein kritischer Beitrag zur Theorie des Bankkredits.* (Jena: Fischer. 1927. Pp. v, 36. Rmk. 1.80.)

MATTHEWS, P. W. and TUKE, A. W. *History of Barclays' Bank, Limited.* (London: Blades, East and Blades. 1926. Pp. xiv, 441. £2 2s.)

MOULIN, A. DU. *Notes économiques et financières. Le budget et la monnaie. Nos fautes. L'accord avec l'Amérique. Stabilisation. Plan Dawes. Bourse et spéculations.* (Brussels: Maurice Lamertin. 1926. Pp. 80.)

NOGAHO, B. *Modern monetary systems.* (London: P. S. King. 1927. Pp. xii, 236. 15s.)

D'ORLEANS, C. *Les banques de depot en Angleterre, avant, pendant, et après la guerre.* (Paris: E. Sagot. 1927. Pp. 402.)

PHELPS, C. W. *The foreign expansion of American banks.* (New York: Ronald. 1927. Pp. ix, 222. \$4.)

This book is an expansion of the author's previous writings on *Les Banques Américaines à l'Etranger et Principalement en France*. Both are studies of financial institutions, and are descriptive in treatment. The author presents in clear style the overseas expansion of American banks since 1914 resulting from the economic changes caused by the war and the legal alteration effected by the Federal Reserve act. The legal status of American branches in foreign countries is explained, and a strong case of treatment of branches is presented. However, one looks in vain for a critical analysis of the causes of the contraction of the American branch system in South America. There is still room for an institutional study of American financial organization abroad, such as the *German Great Banks of Riesser*, who with utmost frankness diagnosed the errors as well as the successes of his countrymen in their overseas expansion during the pre-war period.

GEORGE W. EDWARDS.

PICKEN, J. H. *Credits and collections.* Manuals of business management, vol. VIII. (Chicago and London: Shaw. 1927. Pp. viii, 111.)

REID, R. L. *The Assay Office and the proposed mint at New Westminster.* Archives of British Columbia, memoir no. VII. (Victoria, B. C.: King's Printer. 1926.)

A definitive description of mint prices of 1862.

ROSCH, C. *Kreditinflation und Wirtschaftskrisen unter besonderer Berücksichtigung der Konjunkturentwicklung Deutschlands vor dem Kriege.* (Jena: Fischer. 1927. Rmk. 9.50.)

SCHACHT, H. *Die Stabilisierung der Mark.* (Berlin and Leipzig: Deutsche Verlagsanstalt Stuttgart. 1927. Pp. 193.)

SERUN, P. *La distribution internationale de l'or. Ses relations avec l'abandon de l'étalon d'or dans le monde et avec le retour à l'or.* (Paris: Jouve & Cie. 1927. Pp. 164.)

THOMPSON, L. A., compiler. *Labor banks in the United States: a list of references.* Reprinted from the *Monthly Labor Review*, Sept., 1926. (Washington: Supt. Docs. 1927. Pp. 10.)

VAKIL, C. N. and MURANJAN, S. K. *Currency and prices in India*. (London: P. S. King. 1927. Pp xvi, 549. 18s.)

Written by a research scholar at the School of Economics, University of Bombay. The research covers in three separate parts, currency, prices, and the gold rupee. A special merit of the study is the collection of data in regard to prices in India.

VALOIS, G. and ARTHUYS, J. *Le franc-or (la monnaie et les finances)*, F. (Paris: Nouvelle Lib. Nationale. 1927. Pp. 150.)

WINKLER, M. *America, the world's banker: a summary of American foreign investments*. Information service, vol. III, special supplement no. 3. (New York: Foreign Policy Assoc. 1927. Pp. 17.)

The banking law of the State of New York, constituting Chapter 2 of the Consolidated Laws, being Chapter 369, Laws of 1914, as revised by the Banking Commission of 1914, with amendments to January 1, 1927. (Albany: State House. 1926. Pp. 315.)

The cost of living in the United States in 1926. Supplementing The cost of living in the United States, 1914-1926. (New York: National Industrial Conference Board. 1927. Pp. vi, 33.)

Europäische Banken: Ihre Bilanzen und Konzerne im Jahre 1925. (Prague: Sonder Ausgabe der Wirtschaft. 1926. Pp. 224.)

L'histoire du franc depuis le commencement de ses malheurs. (Paris: Albin Michel. 1926. Pp. 346. 15 fr.)

Proceedings of the 35th annual convention of the United States League of Building and Loan Associations at Asheville, N. C., July, 1927. (Cincinnati: Am. Building Assoc. News. 1927. \$1.)

The State Bank of the U. S. S. R., 1921-1926. (Moscow: Financial and Econ. Research Bureau, State Bank of the U. S. S. R. 1927. Pp. 48.)

Public Finance, Taxation, and Tariff

Tax-Exempt Securities and the Surtax. By CHARLES O. HARDY. (New York: Macmillan. 1926. Pp. xx, 216. \$2.00.)

This book is an interesting and complete analysis of the arguments for and against the exemption of bonds from taxation. The history of tax-exempt securities, the arguments for and against tax exemption, a careful appraisal of these arguments, and a chapter on high surtaxes are included.

The author's treatment of the fiscal effect of tax exemption in chapter 4 is perhaps the most outstanding part of the book. He attempts to answer two questions: first, how much does the government lose in taxes by exempting its bonds; and second, how much does the government gain by being able to borrow money at lower interest rates due to exempting its bonds from taxation.

The first question is the more difficult to answer because, as a prerequisite, one must first know how much tax-exempt interest is received by taxpayers in each surtax group and by corporations paying

federal income taxes. With the aid of whatever data were obtainable, together with estimates where actual figures were not to be had, he has estimated the government's loss in taxes. For the year 1923 his results show that the federal government lost on federal bonds about \$16,000,000, on state and local bonds \$71,000,000, and on federal farm loan bonds \$12,000,000, a total of \$99,000,000.

Although, as the author states, these are only estimates, they are accurate enough to permit important conclusions. One fact that stands out clearly is that persons of wealth have not absorbed as large a share of the tax-exempt bonds as we have been wont to believe.

The second question is: How much does the government gain by tax exemption? To find the difference in interest rates at which a government may float its bonds by making them tax-exempt, the author has compared yield rates of bonds of the various states of the Union with those of Canadian provincial bonds, and has compared the yields of American municipal bonds with Canadian municipals. The Canadian bonds yielded for the year 1923 an average of .96 of one per cent more than the American bonds.

By applying this difference in interest rates to the amount of tax-exempt bonds outstanding, the author determines the approximate savings to the government by lower interest rates. His results for federal bonds and state and local bonds indicate that the loss to the government in taxes approximately equals the gain by lower interest rates at which the government may borrow. It is true, of course, that in the case of state and local bonds the gain is to the states and local bodies and the loss is to the federal government. On federal farm loan bonds, he concludes that the government lost in 1923 somewhat more than the farmers gained by lower interest rates.

The final chapter is on the surtax. The author has not made clear his object or purpose in adding this chapter on high surtaxes as independent from the tax-exempt security issue.

The main conclusions of the author are: that the amount of tax-exempt bonds held in the higher income groups is much smaller than is generally believed; that tax-exemption has resulted in a saving of interest about equal to the amount of income tax loss on account of the exemption; that there is no basis found for the belief that tax-exemption of securities has caused a wave of state and municipal extravagance; that industry has not been seriously handicapped in securing capital for normal expansion on account of the competition of tax-exempt bonds; that both the surtaxes and tax-exempt securities have had a negligible effect in discouraging productive business activity; and that the real issue involved in the determination of surtax rates is one of justice and public morality rather than one of economics.

There are two statements to which exception might be taken. The

first one is, "Tax exemption for state and municipal bonds is a subsidy for good roads, schools, and public utilities, at the expense of those who pay federal income taxes." From this the author concludes that since good roads, schools, and public utilities are very desirable, "the withdrawal of the privilege of tax-exemption from states and municipalities would do more harm than good." Instead of being at the expense of those who pay federal income taxes, the reviewer believes it to be at the expense of the investors of small incomes who buy government bonds in order to secure safe investments and who consequently must accept a lower rate of interest due to a tax-exempt feature for which they have no use. The government is hardly justified in building good roads, schools, and public utilities at the expense of the small investor seeking a safe investment. This would seem a strong argument against tax-exemption.

A second statement to which exception may be taken is, "The experiment of partial tax-exemption has been a colossal failure." This conclusion is based upon the fact that the government paid $1\frac{1}{2}$ to $3\frac{1}{4}$ of one per cent more interest on the partly tax-exempt bonds than it did on the wholly tax-exempt bonds;¹ yet the taxes collected were not even one-twentieth of the extra interest paid. However, to have sold to the general public $31\frac{1}{2}$ per cent tax-exempt bonds under the influence of patriotic appeal during the war would not have been just, even if it could have been done. It would have been charging all the buyers the same price for a tax-exempt privilege that only a small part of them could use. It can hardly be assumed that the sale of bonds with interest higher than $31\frac{1}{2}$ per cent represented a loss. It was the only fair way to treat the majority of the investors in Liberty bonds.

Although the subject of tax-exempt securities has lost some of its popular interest, it still presents a problem of national importance. This book will help the reader to evaluate the points which have been presented as arguments for and against the practice.

Kansas State Agricultural College.

WILLIAM H. ROWE.

NEW BOOKS

- ANDREAE, W. *Bausteine zu einer universalistischen Steuerlehre.* (Jena: Fischer. 1927. Pp. 140. Mk. 8.)
- BESSON, E. *Traité pratique des impôts cédulaires et de l'impôt général sur le revenu.* Fourth ed. (Paris: Dalloz. 1927. Pp. 502.)
- BLACK, C. C. *Law of taxation with special reference to its application in the State of New Jersey; including decisions of the United States Supreme Court, the state courts, and statutes of New Jersey.* Third ed. (Newark: Soney & Sage Co. 1926. Pp. xlii, 609.)

¹This difference was probably due in part to increasing demands for money as the war progressed.

- BLASSBERG, S. *Die Entwicklung und gegenwärtige Gestalt des Steuersystems im Staate New York. Ein Beitrag zum Studium der Steuerverfassungen in den amerikanischen Einzelstaaten.* Heft 7. (Jena: Fischer. 1927. Rmk. 6.)
- BREWSTER, K. and IVINS, J. S. Y. *Holmes and Brewster's federal tax appeals.* (Washington: J. Byrne & Co. 1927.)
- COUVREUR, R. *Les nouvelles taxes. Modifications apportées à la législation en matière de taxe de transmission, taxe de luxe, taxe de séjour et de consommation dans les hôtels, restaurants et pâtisseries.* (Charleroi: Imprimerie F. Collins. 1926. Pp. 75.)
- FLÜGEL, F. *The income tax as applied to individuals.* Volkswirtschaftl. Studien, Heft 16. (Berlin: E. Ebering. 1927. Pp. 77. M. 3.20.)
- FÖLDES, B. *Finanzwissenschaft.* Second rev. ed. (Jena: Fischer. 1927. Rmk. 32.)
- FOULKE, R. R. *The federal income tax.* (Philadelphia and Chicago: John C. Winston Co. 1927. Pp. xxxviii, 850.)
- GERLOFF, W. and MEISEL, F. *Handbuch der Finanzwissenschaft.* Band II, Parts 15-18. (Tübingen: Mohr. 1927. Pp. 209-256; 257-304. M. 2, each part.)
Income tax and war profits tax.
- GIRAULT, A. *Manual de législation financière.* Part 3. *Les dépenses publiques: l'emprunt.* (Paris: Soc. Anon. du Recueil Sirey. 1927.)
- GUILHAUMON, P. *Traité pratique des impôts.* Vols. I-III. (Paris: Albin Michel. 1927.)
- JÈZE, G. *Allgemeine Theorie des Budgets.* (Tübingen: Mohr. 1927. Pp. xvi, 377.)
- LOTZ, W. *Der Finanzausgleich und Bayern.* Recht u. Staat in Geschichte u. Gegenwart, no. 49. (Tübingen: Mohr. 1927. Pp. 47. M. 1.50.)
The financial relation of Bavaria to the Reich in the matter of taxation.
- McBAIN, A. G. *Complete practical income tax.* Second ed. (London: Gee & Co. 1926. Pp. x, 263. 7s. 6d.)
- MARRIOTT, J. A. R. *The mechanism of the modern state. A treatise on the science and art of government.* Vols. I and II. (New York: Oxford Univ. Press. 1927. Pp. xxiii, 596; xii, 595. \$15.)
- MOEHLMAN, A. B. *Public school finance: a discussion of the general principles underlying the organization and administration of the finance activity in public education, together with a practical technique.* (Chicago and New York: Rand McNally. 1927. Pp. xviii, 508. \$3.)
- RUSLANDER, S. L. and MAIN, F. W. *Pennsylvania corporation taxes.* Second ed. (Pittsburgh: Accountants Supply Co. 1927. Pp. 878.)
- SACK, A. N. *Les effets des transformations des états sur leurs dettes publiques et autre obligations financières: traité juridique et financier.* (Paris: Recueil Sirey. 1927. Pp. xvi, 608. 80 fr.)
- SCHLESINGER, R. *Die Zollpolitik der Vereinigten Staaten von Amerika von der Beendigung des Weltkrieges bis zum Fordney-McCumber-Tarif.* (Jena: Fischer. 1927. Pp. 106.)
The American protective policy from 1918 down to the Fordney-

McCumber Tariff. Can the United States maintain their isolation and self-sufficiency by means of protective tariffs?

SELIGMAN, E. R. A. *Théorie sociale de la science des finances*. Translated into French by Alb. Jèze. Reprinted from *Revue de Science et de Législation Financières*. (Paris: Marcel Giard. 1927. Pp. 65.)

SPANN, O. and BELOW, G. VON, editors. *Deutsche Beiträge zur Wirtschafts- und Gesellschaftslehre*. (Jena: Fischer. 1927.)

STOLZMANN, R. *Theoretische Grundfragen zum Problem Freihandel oder Schutzzoll?* (Jena: Fischer. 1927. Pp. v, 109. Rmk. 5.)

STRUTZ, G. *Handbuch des Reichssteuerrechts. Systematische Darstellung der Steuergesetze (einschliesslich Zollrecht) des Deutschen Reiches*. 3 vollständig neu bearbeitete Auflage. (Berlin: Spaeth und Linde. 1927. Pp. xxxii, 1380.)

WRIGHT, S. F. *The collection and disposal of the maritime and native customs revenue since the revolution of 1911*. Second ed. rev. (Shanghai: Statistical Dept. of the Inspectorate General of Customs. 1927. Pp. 276. \$5.)

Contains chapters on collecting, banking and distributing the revenue; foreign loans secured on the revenue; the Boxer indemnity; national loans secured on cancelled indemnities; and disposal of the customs surplus.

American taxes: their classification and description. A report by the Education Committee of the Investment Bankers Association of America. Reprinted from the forthcoming revised and enlarged edition of *The Principles of Bond Investment* by Lawrence Chamberlain. (Chicago: Investment Bankers Assoc. of America, 105 S. La Salle St. 1927. Pp. 53.)

Double taxation and tax evasion. A report by the Committee of Technical Experts on Double Taxation and Tax Evasion. (Geneva: League of Nations. 1927. Pp. 33. 30c.)

The fiscal problem in Delaware. (New York: National Industrial Conference Board. 1927. Pp. x, 150. \$2.50.)

The interdependence of the economic causes of war and of industrial depression. Memorandum addressed to the International Economic Conference of the League of Nations held at Geneva, May 1927, by the International Union for Land-Value Taxation and Free Trade. (New York: N. Y. Tax Reform Assoc., 154 Nassau St. 1927. Pp. 11.)

Major issues in school finance. Parts 1 and 2. Research Bull., vol. IV, no. 5 and vol. V, no. 1. (Washington: National Education Association. 1926 and 1927. Pp. 236-265, 1-63. 25c. each.)

Proceedings of the conference on mine taxation held in conjunction with the twenty-ninth annual convention of the American Mining Congress, Washington, D. C., December 10, 1926. (Washington: American Mining Congress. 1927. Pp. 97.)

Salaries in city school systems, 1926-27. Research Bull., vol. V, no. 2. (Washington: National Education Assoc. 1927. Pp. 66-127. 25c.)

Population and Migration

The Urban Community. Edited by E. W. BURGESS. (Chicago: University of Chicago Press. 1926. Pp. xii, 268.)

One of the ideas back of the program of the 1925 meeting of the American Sociological Society, from the *Proceedings* of which the papers included in the present volume are reprinted, was apparently the notion that there ought to be an urban, as well as a rural, sociology. Consequently the meeting centered upon the sociology of the city; and the papers here reproduced, in order that they may be conveniently available to students, are all deemed to have, presumably, some functional part to play in the orientation of this new rallying point for sociologists who are tired of social philosophy and not interested in the farmer and villager.

In the main, by sufficient latitude of interpretation of what the content of urban sociology may properly be, most of the papers can be conceived to have some such function. It is difficult to detect, however, any obvious relation of three of the papers to urban sociology. Professor Faris' discussion of "the nature of human nature" does not deal with urban human nature specifically; he is concerned with human nature at large, and in terms which would be unsatisfactory to many modern psychologists. Following Cooley, he finds human nature to be predominantly a product of communication, and thus puts himself into opposition to Professor R. H. Johnson in whose paper on "the eugenics of the city" we are asked to take it as fully established that "the superior classes, socially, educationally, and economically, show a significant correlation with innate superiority." Even for human nature at large, however, Faris' fluent vocabulary fails to put clearly for the student the question whether "human nature" is to be confined to the direct product of prepotent reflexes and hypothetical instinct, or is to include the vast and varied product of the learning process. If Professor Sutherland's paper on "the biological and sociological processes" has any specific bearing on urban life, he does not bring it out. Professor Herskovits, in his paper entitled "Some effects of social selection on the American negro" might have dwelt on urban selection, but does not. Evidently he understands by social selection the selection of physical types which can be detected by anthropometrical means, not, with Professor Keller and others, the selection of behavior complexes.

As is usually the case at "learned society" meetings, the papers vary greatly in value. As one would expect, Professor Thomas' discussion of "the problem of personality in the urban environment" is a penetrating piece of work, with the objective background of real inductive research. On the other hand, papers could be mentioned

which still bear the odor of the older sociological attitude—the “social philosophy” from which Professor Burgess, probably in view of the fact that the present generation of younger sociologists no doubt has a better conception of the demands of scientific method than the past generation had, rightly feels that sociology is gradually emancipating itself. Not a few of the papers abound in statements of the obvious, or of facts and generalizations which have been long in print. Professor Zorbaugh, for instance, discusses “the dweller in furnished rooms: an urban type” but save for a more modern terminology, brings out little that was not presented twenty years ago in volume II of the Harvard Economic Studies. One wonders, in passing, why this paper, which necessarily deals with an aspect of social psychology, is placed under “Social Biology” rather than under “Human Nature and the City.”

Of the papers which most definitely bear the hallmark of scientific quality, the group on “Statistics of the City” must be put first. That new departure, “Human Ecology,” gives promise of scientific value, though as yet it has not got entirely away from the obvious. All the abstracts of research projects in urban sociology likewise indicate a scientific spirit and problems definitely formulated.

As a text or book of readings this volume will have a place, but the book would have been better if it included matter other than Sociological Society papers. One misses, for instance, material like Professor Haig’s illuminating articles, “Toward an Understanding of the Metropolis.”

Ohio State University.

A. B. WOLFE.

NEW BOOKS

FRENAY, A. D. *The suicide problem in the United States.* (Boston: Richard G. Badger, The Gorham Press. 1927. Pp. 200.)

A statistical study covering data down to recent years. Among the phases of the problem treated are the method, occupations, institutions, climate, race, religion, and sex. There is a bibliography of seven pages.

LUNDBORG, H and LINDERS, F. J., editors. *The racial characters of the Swedish nation.* (Jena: Fischer. 1927. Pp. xiv, 182. Rmk. 115.)

SANGER, M. H. *Problems of overpopulation.* Sixth International Neo-Malthusian and Birth Control Conference, vol. II. (New York: American Birth Control League. 1926. Pp. 208.)

SWEENEY, J. S. *The natural increase of mankind.* (Baltimore: Williams & Wilkins. 1926. Pp. 165.)

WESLEY, C. H. *Negro labor in the United States.* (New York: Vanguard Press. 1927. Pp. xiii, 343. 50c.)

A study of the negro “as a laborer and not as a slave.” The author is in the department of history at Howard University, and the study was made for the degree of Ph. D. in history at Harvard University. The

Quarterly Journal of Economics, Feb. and May, 1926.

research begins with a chapter on slavery and contrasts this with the economic status of the free negro. Successive chapters deal with the period of transition and the problems which this created. There are hundreds of notes to source material, covering references to the daily press for seventy-five years. These and a ten-page bibliography carefully classified give evidence of the wide reading of the author.

Migration movements, 1920-1924. Studies and reports, series O, no. 2. (Geneva: International Labour Office. 1926. Pp. 105. 50c.)

Statistical report on the external migration of the Dominion of New Zealand for the year 1926. (Wellington: Census and Statistics Office. 1927. Pp. xii, 30. 2s.)

Statistik des Deutschen Reiches. Band 316. *Die Bewegung der Bevölkerung in den Jahren 1922 und 1923 und die Ursachen der Sterbefälle in den Jahren 1920-23.* (Berlin: Reimar Hobbing. 1926. Pp. 222. M. 25.)

Social Problems and Reforms

NEW BOOKS

ANDERSON, B. M. *Types of social radicalism.* Chase Econ. Bull. vol. VII, no. 3. (New York: Chase National Bank of the City of N. Y. 1927. Pp. 28.)

ANDREWS, L. C. *Analysis of operation of federal and state laws affecting prohibition.* (Washington: Supt. Docs. 1926. Pp. 15. 5c.)

BEDFORD, S. E. W., editor. *Readings in urban sociology.* (New York: Appleton. 1927. Pp. xxxiv, 903. \$5.)

These readings are drawn from a great variety of sources, numbering over 500; necessarily, therefore, many of them are very short. They are arranged under the general topics of historical growth of cities; location; city planning; streets and alleys; transportation and traffic; civic aesthetics and architecture; public health and safety; housing; the community and neighborhood; social adjustment. Under each of these general topics there is a classified bibliography with questions for discussion and study, topics for investigation and suggested field trips. The author is research secretary of the United Charities of Chicago, and formerly associate editor of the *American Journal of Sociology*.

BLACKSTONE, E. G. *Research studies in commercial education.* Univ. of Iowa monographs in educ., series I, no. 7. (Iowa City: Univ. of Iowa. 1926. Pp. 160. 50c.)

BRECKINRIDGE, S. P. *Public welfare administration in the United States. Social service series.* (Chicago: Univ. of Chicago Press. 1927. Pp. 809. \$4.50.)

CABOT, R. C., editor. *The goal of social work.* (Boston: Houghton Mifflin. 1927. Pp. 244. \$2.50.)

CRAIG, A. H. and EDGERTON, MRS. A. C. *Both sides of thirty public questions completely debated.* Rev. ed. (New York: Noble & Noble. 1926. Pp. 573. \$2.25.)

DALZELL, A. G. *Housing in Canada. I. Housing in relation to land development.* (Toronto: Social Service Council of Canada, 309 Metropolitan Bldg. 1927. Pp. v, 40. 25c.)

DAME, M. LA. *Securing employment for the handicapped: a study of placement agencies for this group in New York City.* (New York: Welfare Council of N. Y. C., 151 Fifth Ave. 1927. Pp. 133. 50c.)

This study considers the work and methods of the twelve non-fee charging organizations in New York City that find employment for the handicapped. Seven of these limit their work to this task, while the remainder carry on other functions as well.

Among the reasons discovered for the failure of these organizations to achieve the maximum of success are: a measurable disregard for the interest of the employer, lack of interest by the employer, inadequate information as to suitable employments, lack of part-time jobs, the connection of some of the agencies with well-known philanthropies, lack of information in respect to the physical and mental condition of applicants, and the failure of many of the handicapped to believe in themselves.

The report analyzes in detail the personal and social conditions of 1046 applicants for work, and by means of this study enables the reader to visualize the problem of the handicapped. The last chapter catalogues a series of 22 outstanding facts. It is on these facts that suggestions and recommendations for improvement are based.

GEORGE B. MANGOLD.

DAMPIER-WHETHAM, C. *Politics and the land.* (Cambridge, Eng.: Cambridge Univ. Press. 1927. Pp. x, 215. 6s.)

DAVIS, J. D. *Business and the church.* (New York: Century. 1926. \$2.50.)

FAIRCHILD, H. P. *Foundations of social life.* (New York: Wiley. 1927. Pp. 283. \$2.75.)

FAY, C. N. *Social justice, the moral of the Henry Ford fortune.* (Cambridge, Mass.: Cosmos Press. 1926. Pp. xvi, 269.)

HARMS, B. *Vom Wirtschaftskrieg zur Weltwirtschaftskonferenz.* Weltwirtschaftliche Gestaltungstendenzen im Spiegel gesammelter Vorträge. (Jena: Fischer. 1927. Pp. xiv, 359. M. 15.)

Six lectures, dating from 1916 to 1927, on the future of larger economics and world politics. The author advocates freedom of economic intercourse between all nations, and bases his hopes of the peace of the world on the development of organized international supply.

HATCHER, O. L., editor. *Occupations for women.* (Richmond, Va.: So. Woman's Educ. Alliance, 401 Grace-Amer. Bldg. 1927. Pp. 565. \$3.50.)

HAYES, E. C., editor. *Recent developments in the social sciences.* Lippincott ser. in sociology. (Philadelphia: Lippincott. 1927. Pp. vii, 427. \$3.50.)

JANES, G. M. *Man and society.* (Menasha, Wis.: Collegiate Press. 1927. Pp. 105. \$1.25.)

The subject is treated under the headings: "The social gospel;" "The social sciences;" "Stages of social development;" "Social relations;" "Social aspects of rural life;" and "Fundamentalism." A list of reading references is furnished.

LANGELUTTIG, A. *The department of justice of the United States.* (Baltimore: Johns Hopkins Press. 1927. Pp. xvi, 318. \$3.)

LUNDQUIST, G. A. and CARVER, T. N. *Principles of rural sociology.* (Boston: Ginn. 1927. Pp. 491. \$2.84.)

McCOMBS, C. E. *City health administration.* (New York: Macmillan. 1927. Pp. x, 524. \$5.50.)

NORTH, C. C. *Social differentiation.* (Chapel Hill, N. C.: Univ. of N. C. Press. London: Oxford Univ. Press. 1926. Pp. ix, 343.)

RYAN, J. A. *Declining liberty and other papers.* (New York: Macmillan. 1927. Pp. x, 350. \$4.)

A collection of essays previously published in periodicals. Eight of the papers discuss the different aspects of liberty; four deal with industrial ethics; and three with state supervision of industry.

———. *Distributive justice: the right and wrong of our present distribution of wealth.* Rev. ed. (New York: Macmillan. 1927. Pp. xi, 404. \$4.)

SOROKIN, P. *Social mobility.* (New York: Harper. 1927. Pp. xvii, 559. \$3.75.)

SPROWLS, J. W. *Social psychology interpreted.* (Baltimore: Williams & Wilkins. 1927. Pp. 216. \$4.)

STERN, B. J. *Social factors in medical progress.* Studies in history, economics and public law, no. 287. (New York: Columbia Univ. Press. 1927. Pp. 136. \$2.25.)

THOMPSON, L. A., compiler. *Workers' leisure: a selected list of references.* Reprinted from the *Monthly Labor Review*, March, 1927. (Washington: Supt. Docs. 1927. Pp. 10.)

WILCOX, C. *The parole of adults from state penal institutions in Pennsylvania and in other commonwealths.* A thesis. (Philadelphia: Univ. of Pa. 1927. Pp. vii, 259.)

The medical inspection of labour. Report of the meeting of medical inspectors of labour held in Düsseldorf, 15-16 September, 1926. Studies and reports, series F (industrial hygiene), no. 10. (Geneva: International Labour Office. 1926. Pp. 80. 40c.)

Municipal government and administration. First edition of program of the Fifth Commonwealth Conference under the auspices of the State University of Iowa, June 27-29, 1927. Univ. of Iowa Ext. Bull. no. 172. (Iowa City: Univ. of Iowa. 1927. Pp. 47.)

Prisoners, 1923: crime conditions in the United States as reflected in census statistics of imprisoned offenders. (Washington: Supt. Docs. 1927. Pp. v, 363.)

Proceedings of the National Conference of Jewish Social Service at the annual session held in Cleveland, Ohio, May 26-June 2, 1926. (Chicago: National Conf. of Jewish Soc. Serv. 1926. Pp. v, 365.)

Proceedings of the National Conference of Social Work at the fifty-third annual session held in Cleveland, Ohio, May 26-June 2, 1926. (Chicago: Univ. of Chicago Press. 1926. Pp. vi, 716.)

Verhandlungen des Fünften Deutschen Soziologentages vom 26 bis 29 September in Wien. (Tübingen: Mohr. 1927. Pp. x, 227.)

Insurance and Pensions

NEW BOOKS

- BARBOUR, R. P. *Earned premiums*. An address delivered before the Fire Underwriters' Association of the Northwest at its annual meeting, March 1, 1927. (London: Northern Assurance Co. 1927. Pp. 12.)
- CLEMENTSON, G. B. *The Workmen's Compensation act of Wisconsin (with appendix)*. (Beloit, Wis.: Beloit Daily News. 1926. Pp. 231.)
- CUNNEEN, T. F. *State supervision of casualty insurance*. Howe readings on insurance, no. 7. (New York: Insurance Society of N. Y. 1927. Pp. 34.)
- FRAMHEIN, E., JR. *Die Herbeiführung des Versicherungsfalles*. Veröffentlichungen des Deutschen Vereins für Versicherungs-Wissenschaft, Heft 41. (Berlin: E. S. Mittler. 1927. Pp. 95.)
- GIUA, S. *Scienza economica e assicurazioni sociali*. (Torino: Fratelli Bocca. 1927. Pp. ix, 131. L. 18.)
Theory and effects of the social insurance of the working classes.
- HOUSEMAN, I. E. *A digest and an explanation of the New Jersey teachers' pension and annuity fund law*. (Hoboken, N. J.: Author, 519 Garden St. 1927. Pp. 160. \$1.)
- PATTERSON, E. W. *The insurance commissioner in the United States*. A study in administrative law and practice. (Cambridge: Harvard Univ. Press. 1927. Pp. xviii, 589. \$6.)
- TARBELL, T. F. *Legal requirements and state supervision of fire insurance*. (New York: Insurance Society of N. Y. 1927. Pp. 38.)
- WOLL, M. and BENSON, C. D. *The birth and development of the Union Labor Life Insurance Company*. Addresses delivered at the first annual meeting of the stockholders, March 14, 1927. (Baltimore: Union Labor Life Insurance Co. 1927. Pp. 47.)
- The Carnegie Foundation for the Advancement of Teaching: twenty-first annual report of the president and of the treasurer*. (New York: Carnegie Found. for the Advance. of Teaching. 1927. Pp. vii, 250.)
- Casualty Actuarial Society: 1927 year book*. No. 6. (New York: Casualty Actuarial Soc. 1927. Pp. 38.)
- Report on the insurance statistics of the Dominion of New Zealand for the year 1925*. (Wellington: Census and Statistics Office. 1927. Pp. xvi, 25.)
- Report on sickness insurance*. Internat. Labour Conf., tenth session. (Geneva: International Labour Office. 1927. Pp. 293.)

Pauperism, Charities, and Relief Measures

NEW BOOKS

- MARSHALL, H. J. *Socialism and the poor law*. Lecture delivered at Caxton Hall, Westminster, on March 21, 1927. Socialism in local government, pamphlet no. 29. (London: Lond. Munic. Soc. and Nat. Union of Rate-payers Associations. 1927. Pp. 21. 3d.)

PATON, D. N. and FINDLAY, L. *Poverty, nutrition and growth*. Special rep. ser., no. 101, Medical Research Council. (London: H. M. Stationery Office. 1926. Pp. vi, 333. 10s.)

WEBB, S. and WEBB, B. *English poor law history*. Part 1. *The old poor law*. (London: Longmans. 1927. 21s.)

Socialism and Co-operative Enterprises

NEW BOOKS

JENSSEN, O., editor. *Marxismus und Naturwissenschaft: Gedenkschrift zum 30. Todestage des naturwissenschaftlers Friedrich Engels, mit Beiträgen von Friedrich Engels, Gustav Eckstein und Friedrich Adler*. (Berlin: E. Laub. 1925. Pp. 180.)

LAIDLER, H. W. *History of socialist thought*. (New York: Crowell. 1927. Pp. xxii, 713. \$3.50.)

SWARTZ, C. L. *What is mutualism?* (New York: Vanguard Press. 1927. Pp. 247. 50c.)

Statistics and Its Methods

NEW BOOKS

BOWLEY, A. L. and STAMP, J. *The national income, 1924. A comparative study of the income of the United Kingdom in 1911 and 1924*. (Oxford: Clarendon Press. 1927. Pp. 59. \$1.25.)

BROWN, F. *A tabular guide to the foreign trade statistics of twenty-one principal countries*. Special mem. no. 21. (London: London and Cambridge Econ. Serv., in coöp. with Harvard Univ. Com. on Econ. Research. 1926. Pp. viii, 125, 33. \$3.)

BUTLER, B. *Statistical (figure) tabulation made plain, its vital importance and easy application to accounting systems, of which it is an integral part; a practical primer for business men, educators and students*. (Washington and New York: National Statistical Service Bureau. 1926. Pp. 70.)

DUBLIN, L. I., KOPF, E. W. and LOTKA, A. J. *The components of death curves*. Reprinted from the *American Journal of Hygiene*, vol. VII, no. 3. (Baltimore: Am. Jour. of Hygiene. 1927. Pp. 34.)

GILLMAN, J. M. *Business barometers for the Pittsburgh district*. No. 1. *The iron and steel industry*. No. 2. *The price of pig iron*. (Pittsburgh: Univ. of Pittsburgh, School of Bus. Admin. 1927. Pp. 22, 15. 50c. each.)

HOPKINS, G. R. *Petroleum refinery statistics, 1916-1925*. U. S. Dept. of Commerce, bull. 280. (Washington: Supt. Docs. 1927. Pp. iv, 141. 30c.)

JORDAN, D. F. *Practical business forecasting*. (New York: Prentice-Hall. 1927. Pp. xiv, 285.)

KUZNETS, S. S. *Cyclical fluctuations*. Retail and wholesale trade, United States, 1919-1925. (New York: Adelphi. 1926. Pp. 201.)

- LACROIX, A. and RAGOT, C. L. *A graphic table combining logarithms and anti-logarithms.* (New York: Macmillan. 1927. Pp. 64. \$1.40.)
- RIGGLEMAN, J. R. *The problem of analyzing local business conditions.* Address delivered at the eighty-eighth annual meeting of the American Statistical Association at St. Louis, December 28-30, 1926. (Los Angeles: Eberle & Riggleman, 810 S. Spring St. 1927. Pp. 11.)
- SCHMIDT, F. *Die Industriekonjunktur: ein Rechenfehler.* (Berlin: Spaeth & Linde. 1927. Pp. 95.)
- SNYDER, C. *Business cycles and business measurements.* Studies in quantitative economics. (New York: Macmillan. 1927. Pp. xiv, 326. \$6.)
- STAMP, J. *The statistical verification of social and economic theory.* Barnett House papers no. 10, Sidney Ball lecture, November 5, 1926. (London and New York: Oxford Univ. Press. 1927. Pp. 33. 35c.)
- WESTERGAARD, H. *Die Grundzüge der Theorie der Statistik.* Second rev. ed. (Jena: Fischer. 1927. Rmk. 17.)
- WOYTINSKY, W. L. *Die Welt in Zahlen.* (Berlin: Rudolf Mosse. 1927. Pp. xxii, 376.)
- WYNGARDEN, H. *An index of local real estate prices.* Michigan bus. studies, vol. I, no. 2. (Ann Arbor: Univ. of Michigan. 1927. Pp. vii, 32.)
- Births, marriages, divorces and deaths in New Hampshire: thirtieth report relating to the registration and return for the years 1924 and 1925.* Vol. XXVII, new series. (Concord, N. H.: State House. 1926. Pp. 232.)
- Extracto estadístico del Perú, 1925.* (Lima: Ministerio de Hacienda y Comercio. 1926. Pp. iv, 177. Gratis.)
- Metal statistics, 1927.* (New York: American Metal Market, 11 Cliff St. 1927. Pp. 543. \$2.)
- Population census, Dominion of New Zealand, 1926.* Vol. I. *Geographical distribution.* (Wellington: Census and Statistics Office. 1927. Pp. 86. 4s. 6d.)
- Statistical yearbook of Quebec, 1926.* (Quebec: Bureau of Statistics, Dept. of the Secretary of the Province. 1926. Pp. xxiii, 479.)
- The Third International Conference of Labour Statisticians, held at Geneva, 18 to 23 October, 1926.* Studies and reports, series N, no. 12. (Geneva: International Labour Office. Pp. 122. 40c.)

PERIODICALS

The REVIEW is indebted to R. S. Saby for abstracts of articles in Danish, Dutch, and Swedish periodicals, to Ralph Radcliffe Whitehead for abstracts of articles in Italian periodicals, and to Harold A. Innis for abstracts of Canadian articles.

Theory

(Abstracts by Morris A. Copeland)

BOUSQUET, G. H. *Critique de l'économie pure*. Rev. d'Econ. Pol., Sept.-Oct., 1926. Pp. 34. Would have economics abandon the mathematical method; become more concrete and historical, recognizing individual differences and social groupings; and treat the monetary aspect of a transaction as epiphenomenal and psychological aspect as fundamental.

EDIE, L. D. *Some positive contributions of the institutional concept*. Quart. Jour. Econ., May, 1927. Pp. 36. New economics methods (the descriptive, the statistical, and the historical) and new psychological presuppositions have led a wide variety of writers to enlarge value theory and to reshape the theory of production, distribution, and consumption into problems in social control and the genesis and guidance of choice.

HAYES, H. G. *Land rent and the prices of commodities*. Am. Econ. Rev., June, 1927. Pp. 11.

HOLLANDER, J. H. *Adam Smith, 1776-1926*. Jour. Pol. Econ., Apr., 1927. Pp. 45. University of Chicago commemorative lectures. The first traces the rise of political economy to dominance over political arithmetic in English thought. The second discusses Smith's relation to his contemporaries and followers.

JANES, G. M. *Ricardo and Ricardian economics*. Quart. Jour. Univ. of N. Dakota, Jan., 1927. Pp. 16. A popular statement.

KEILHAU, W. *Pengevårdi og værdi*. Nat. ök. Tids., Nos. 1 and 2, 1927. Pp. 16. Discusses the relationship of money and value and points out what he considers the weak points in Irving Fisher's equation of exchange.

LOTZ, W. *Adam Smith, ein Jubiläum*. Schmollers Jahrb., Feb., 1927. Pp. 10. Both when right and when wrong, he stimulates scientific thought.

LÖWE, A. *Wie ist Konjunkturtheorie überhaupt möglich?* Weltwirtsch. Archiv, Oct., 1926. Pp. 33. Questions the adequacy of a static economic theory which deals with isolated parts of our economic system.

MARSHALL, L. C. *How may we foster the development of the social sciences?* Jour. Pol. Econ., Apr., 1927. Pp. 7. Suggests more study of scientific method, cross-fertilization with other subjects, and more social science in elementary education.

PIROU, G. M. *Pantaleoni et la théorie économique*. Rev. d'Econ. Pol., Sept.-Oct., 1926. Pp. 22. While Pantaleoni has contributed much to the subjective and abstract side of economics, his alleged synthesis of the schools is achieved only by arbitrary interpretations.

SALZ, A. *Der Begriff der "Elastizität" in der theoretischen Nationalökonomie*. Archiv f. Sozialwis. u. Sozialpolitik, Apr., 1927. Pp. 56. Holds that elasticity of supply varies more than that of demand with the time between price change and adjustment to it; also that supply curves are of both ascending and descending types. Enumerates conditions making for elasticity, and discusses applications of concept to wage laws and international trade.

VINER, J. *Adam Smith and laissez-faire*. Jour. Pol. Econ., Apr., 1927. Pp. 35. University of Chicago commemorative lecture. The *Theory of Moral Sentiments*

is an unqualified doctrine of natural harmony under divine guidance. In the *Wealth of Nations* generalizations are invoked against specific government activities under attack; but the doctrine of harmony runs in terms of human institutions, numerous exceptions to it are noted, and wide scope is given to government activity.

Economic History (United States)

(Abstracts by Amelia C. Ford)

- AYRES, P. W. *The Pack demonstration forests*. Am. Rev. Rev., May, 1927. Pp. 3. Describes the three demonstration forests which Mr. Pack has established, as "show windows" in forestry, in New Hampshire, New York and Washington.
- BADER, L. *British colonial competition for the American cotton belt*. Econ. Geog., Apr., 1927. Pp. 22. "If we cannot bring our price down to the level necessary for greatly increased consumption of cotton, attempts to grow cotton elsewhere on a large scale will continue until the world secures, at a not very distant date, cotton at the necessary price. This may result in a wide extension of cotton growing in Africa and South America.....to the detriment of the whole United States." Graphs, tables, pictures.
- BAXTER, F. *Rafting on the Alleghany and the Ohio, 1844*. Pa. Mag. of Hist. and Biog., Jan., 1927.
- BENTON, A. H. and FULLER, O. M. *A St. Lawrence deep waterway: its significance to North Dakota*. Quart. Jour. Univ. of N. Dakota, Nov., 1926.
- BERRY, W. J. *The influence of natural environment in North Central Iowa*. Iowa Jour. Hist. and Pol., Apr., 1927. Pp. 22. Traces the agricultural development of this section from the early settlements to the present.
- COLE, H. E. *Stage coach and tavern days in the Baraboo region*. Transactions of Wis. Acad. of Sci., Arts and Letters, Vol. XXII.
- CONRAD, L. H. *A story of Midland*. Mich. Hist. Mag., Apr., 1927. Pp. 8. Outlines the revival of this small Michigan town, after the decline of the lumbering business, by building up a chemical industry which utilized the by-products of salt.
- DAVIS, M. L. *What does Alaska want?* Scribner's, June, 1927. Pp. 8. Points out that conditions existing today in colonial Alaska are identical or very similar with those in colonial New England; that the two things Alaska wants are more agencies of all kinds for better transportation and communication, and a sympathetic spirit of understanding on the part of the mother country.
- DAYTON, F. E. *Steamboat days*. Neb. Hist. Mag., Jan.-Mar., 1925 (published Feb., 1927).
- ELLISON, J. *The currency question in Oregon during the Civil War period*. Ore. Hist. Quart., Mar., 1927. Pp. 10. The Specific Contract act and the State Taxing act helped Oregon to retain the metallic currency; thus "while in the East notes were the medium of exchange and gold was at a premium, on the Pacific Coast coin was the medium of exchange, and notes were merchandise taken at a discount."
- HILL, J. D. *Some economic aspects of slavery, 1850-60*. So. Atlantic Quart., Apr., 1927. Pp. 17. Sets forth the conditions which made slave labor an economic burden and handicap on the southern planters.
- JOPLING, J. E. *Personal experiences of a mining engineer*. Mich. Hist. Mag., 1927. Pp. 17. An account of iron mining and lumbering in Michigan in the 80's.
- LOCKLEY, F. *Oregon immigrants of 1844*. Wash. Hist. Quart., Apr., 1927. Pp. 10. Includes items regarding the emigrant trains on their way to Oregon, particularly difficulties with the livestock.

MITCHELL, B. *Fleshpots in the South*. Va. Quart. Rev., Mar., 1927. Discusses growth of industry in the South since the Civil War; the change in the spirit of the present industrial leaders from that of the early capitalists. "If you thrust your fingers into the downy wool of the lamb, you feel beneath it the coarse bristle of the wolf. However compensated for or glossed over, wages are low and hours are long."

NASATIE, A. P. *Jacques D'Eglise on the Upper Missouri, 1791-1795*. Miss. Valley Hist. Rev., June, 1927. Pp. 10. An account, heavily documented, of the trade carried on by this Spaniard with the Mandan Indians.

PAULL, I. S. *The changing map of industry*. Nation's Bus., May, 1927. Pp. 4. Points out how rapidly our geography of industry changes. Two causes for these changes are: (1) the desire of new centers of population to become industrially self-sufficient and to provide employment for men and money; (2) the effort of industry to locate in developing markets, either through the erection of new plants, or by the establishment of branch factories.

QUAIFE, M. M. *Detroit and early Chicago*. Burton Hist. Coll. Leaflet, Jan., 1927. Deals with the early relations between the two cities.

SHAW, A. *How Florida is getting on*. Am. Rev. Rev., May, 1927. Pp. 10. Observations on the status of Florida at the end of the present winter season, in regard to fruit and farm products, agricultural experiments in reforestation and dairying, roadbuilding, and intellectual interests.

YVES-GUYOT. *Les Etats-Unis d'aujourd'hui et les vérités économiques en action*. Jour. des Econ., Apr. 15, 1927. Pp. 18. A critical review in which M. Yves-Guyot questions the conclusions set forth in M. Siegfried's book of the above title, particularly the assertions that the civilization of the United States destroys individuality, that the possession of material comfort does not lead to a higher civilization, and the selection of Gandhi as representative of Eurasian civilization to contrast with Ford as typical of American civilization.

Early coastwise and foreign shipping of Salem. Essex Inst. Hist. Coll., Apr., 1927. Pp. 16. An alphabetical list with explanatory paragraphs; one illustration shows a page from the log book of Capt. Ebenezer Bowditch on a voyage from Salem to Fayal in 1753.

Notes and documents: an early Minnesota mill. Minn. Hist. Bull., Mar., 1927. Pp. 2. Contains extracts from the day books of the concern, showing receipts from one month's grinding, also how the mill-hands filled in their spare time hauling wood, killing hogs, assorting potatoes, etc.

Nebraska Hist. Mag., Jan.-Mar., 1925 (published Feb., 1927). Contains a series of short articles on recent legislation providing for the navigation of the Missouri River.

Economic History (Foreign)

BENHAM, F. C. *The efficiency of Australian manufacturing*. Econ. Record, Nov., 1926. Pp. 4.

CONDLIFFE, J. B. *The industrial revolution in the Far East*. Econ. Record, Nov., 1926. Pp. 30.

GARDNER, J. *The resources and development of South Africa*. Finan. Rev. Rev., Apr.-June, 1927. Pp. 8.

GAY, E. F. *Arthur Young on English roads*. Quart. Jour. Econ., May, 1927. Pp. 7.

GREEN, P. J. *Social reform at Rome two thousand years ago*. Quart. Jour. Univ. of N. Dakota, Jan., 1927. Pp. 12.

HOYDE, B. J. *French socialism and Franco-German relations*. Jour. Pol. Econ., Apr., 1927. Pp. 17.

- JONA, C. *La società mineraria tedesca e la società a garanzia limitata*. Riv. del Diritto Comm., Jan.-Feb., 1927. Pp. 36. On mining rights and mining companies in Germany, France and Italy.
- KNIGHT, M. M. *Recent literature on the origins of modern capitalism: a review*. Quart. Jour. Econ., May, 1927. Pp. 14.
- KRZYŻANOWSKI, W. *Literature of location of industries*. Jour. Pol. Econ., Apr. 1927. Pp. 14.
- LAYTON, W. T. *The forthcoming Economic Conference of the League of Nations and its possibilities*. Jour. Royal Inst. Internat. Affairs, Mar., 1927. Pp. 20.
- MANNICHE, P. *The rise of the Danish peasantry*. Soc. Rev., Apr., 1927. Pp. 3.
- MARTIN, G. *The industrial reconstruction of France since the war*. Harvard Bus. Rev., Apr., 1927. Pp. 12.
- PATTERSON, E. M. *The Economic Conference*. New Repub., May 18, 1927. Pp. 2.
- RATTO, O. *La ricostruzione economica francese (1918-1926)*. Riv. di Pol. Econ., Apr., 1927. Pp. 10. A valuable account of French reconstruction, which will be continued in future numbers.
- SAKUDA, S. *Some characteristics of the Chinese national economy*. Kyoto Univ. Econ. Rev., Dec., 1926. Pp. 27.
- STERRETT, J. E. *The Dawes plan in operation*. Jour. Accountancy, June, 1927. Pp. 16.
- WITTFOGEL, K. A., *Probleme der chinesischen Wirtschaftsgeschichte*. Archiv f. Sozialwis. u. Sozialpolitik, Apr., 1927. Pp. 47.
- ZANCHI, A. *Le diparazioni della Germania. Come hanno funzionato durante l'esercizio 1 settembre, 1925—31 agosto, 1926*. Riv. Bancaria, Apr., 1927. Pp. 12. A careful account of the German reparation payments in 1925-1926.
- ZIANGÁLL, G. *L'industria zolfifera siciliana*. Gior. d. Econ., Apr., 1927. Pp. 45. The Sicilian sulphur industry and its relations to that in the United States.

Agricultural Economics

(Abstracts by A. J. Dadisman)

- ARNER, G. B. L. *What foreign competition is doing to agriculture*. Am. Bankers Assoc. Jour., May, 1927. Pp. 2. The rise and decline of foreign markets are traced and probable future demands pointed out.
- BLACK, J. D. *Agriculture now?* Jour. Farm Econ., April, 1927. Pp. 26. An examination of recent developments to determine prevailing trends in agriculture.
- COX, A. B. *Cotton futures markets in Europe*. Jour. Farm Econ., April, 1927. Pp. 16. The operation and functions of cotton futures markets.
- GIBSON, H. *River Plate wool production*. Bull. Nat. Assoc. Wool Manuf., April, 1927. Pp. 7. Standards of living are defined and methods of determining reasons for the decline.
- HIBBARD, B. H. and ALLIN, B. W. *Tax burdens compared—farm, city, village*. Wis. Exp. Sta. Bull. 393, March, 1927. Pp. 26. An analysis of more than nineteen thousand reports to ascertain how the increased tax burdens of the past decade have fallen relatively upon farm, city, and village classes respectively.
- HIBBARD, B. H. and HOWE, H. *The farm lease in Wisconsin*. Wis. Exp. Sta. Bull. 391, Feb., 1927. Pp. 26. The essentials of various types of lease contracts are explained, and forms of lease contract in general use are given.

- HOLMES, C. L. *The Iowa agricultural outlook for 1927*. Iowa Exp. Sta. Cur. Econ. Series, Rep. No. 5, April, 1927. Pp. 24. The conditions of production and prospects for the year for the important agricultural commodities produced in Iowa, and suggestions for farm reorganization to meet these conditions.
- HONJO, E. *The agrarian problem in the Tokugawa regime*. Kyoto Univ. Econ. Rev., Dec. 1926. Pp. 19. The life and problems of the farming class, and measures taken in coping with the situation.
- HOYT, E. E. *Determination of rural standards of living*. Jour. Farm Econ., April, 1927. Pp. 7. Standards of living are defined and methods of determining standards of living in rural Iowa are explained.
- KAWADA, S. *Agricultural problems and their solution in Japan*. Kyoto Univ. Econ. Rev., Dec., 1926. Pp. 37. A discussion of problems and their solution concerning agriculture as an industry and those which deal with the life of farmers.
- KIRKPATRICK, E. L. *Joint coöperative studies in the field of rural life*. Jour. Farm Econ., April, 1927. Pp. 6. An attempt to show that both social and economic aspects of farm life are involved in dealing with the major problems of farm life. A project form is given.
- KNAPP, B. *Safe farming for 1927*. Okla. Extension Cir. 232, 1927. Pp. 19. An argument favoring a reduction in the acreage of cotton, particularly in Oklahoma and Texas.
- LEE, V. P. *Short-term farm credit in Texas*. Texas Exp. Sta. Bull. 351, Mar., 1927. Pp. 25. Source of credit, amount, security, purpose, length of time, and cost are considered.
- NEWTON, R. W. *Michigan farmers' tax guide*. Mich. Exp. Sta. Cir. Bull. 100, Jan., 1927. Pp. 11. A popular statement of a summary of the tax laws of Michigan.
- PECK, H. W. *The influence of agricultural machinery and the automobile on farming operations*. Quart. Jour. Econ., May 1927. Pp. 11. A summary of advantages and disadvantages to agriculture resulting from mechanical appliances and automotive transportation.
- PEDERSEN, J. *Ireland som Danmarks konkurrent paa det engelske marked*. Nat. ök. Tids., No. 6, 1926. Pp. 16. Finds Ireland well adapted by nature to compete with Danish agriculture in English markets, but does not think Irish competition likely to become serious for some time, at least, because of political conditions in Ireland and because so much intensive educational work would be needed to train the Irish in production and coöperation.
- SARLE, C. F. *Reliability and adequacy of farm-price data*. U. S. Dept. Agric. Bull. 1480, March, 1927. Pp. 66. Methods of collecting, analyzing, and using farm-price data.
- SCHULTZ, H. *Cost of production, supply and demand, and the tariff*. Jour. Farm Econ., April, 1927. Pp. 18. A technical discussion of methods of determining effects of a given tariff on prices, production and imports of agricultural commodities.
- SEEDORF, W. *Scientific management of agricultural labour, its development in Germany and its international importance*. Intern. Rev. Sci. and Prac. of Agric., Oct.-Dec., 1926. Pp. 13. An argument favoring the proper adjustment of the agricultural laborer to conditions so as to become most efficient.
- SHERMAN, C. B. *Long time programs for agriculture*. So. Atlantic Quart., Apr., 1927. Pp. 15. A review of the work done and in progress in formulating agricultural programs.
- SOULE, G. *Farming with profit (Van Dyck's luck)*. New Repub., March 9, 1927. Pp. 3. How a farmer achieved success on a forty-acre North Carolina farm.

- STINE, O. C. *World production vs. American production of agricultural products*. Mimeograph Pub., U. S. Dept. Agric., Bureau Agric. Econ., Nov., 1926. Pp. 16. Importance of studying changes in foreign markets in developing our future agricultural program.
- VON TUNGELN, G. H. and others. *Cost of living on Iowa farms*. Iowa Exp. Sta. Bull. 237, June 1926. Pp. 56. A record and analysis of the cost of living expenditures of 472 farm families in three areas in Iowa. Data obtained by survey method.
- WEHRWEIN, G. S. *The problem of inheritance in American land tenure*. Jour. Farm Econ., April, 1927. Pp. 13. A consideration of the principal means of acquiring landed property.
- ZIMMERMAN, C. C. *Objectives and methods in rural living studies*. Jour. Farm Econ., April, 1927. Pp. 15. The pitfalls in rural life studies are pointed out, and terminology in use discussed.
- Esthonia: the agricultural cooperative movement*. Intern. Rev. Agric., Feb., 1927. Pp. 11. A brief statement of the status and progress of the many types of cooperative organizations.
- The science of farm labor: scientific management and German agriculture*. Internat. Lab. Rev., March, 1927. Pp. 35. A discussion of the application of scientific management of labor to agriculture.

Commerce

(Abstracts by H. R. Tosdal)

- DAVIDSON, D. *Konkurrenzförhållandena inom sickerindustrien*. Ek. Tids., Nos. 10-12, 1926. Pp. 44. Gives a survey of competitive conditions within the sugar industry throughout the world, and points out in particular post-war difficulties.
- EULENBURG, F. *Die handelspolitischen Ideen der Nachkriegszeit*. Weltwirtsch. Archiv, Jan., 1927. A careful study of post-war commercial policy.
- FAT, H. V. *Commercial policy in post-war Europe: reciprocity versus most-favoured-nation treatment*. Quart. Jour. Econ., May, 1927. A discussion of the diplomatic struggle which has gone on in Europe since the war among states sponsoring the most-favored-nation clause and those trying to break away from it in favor of reciprocity.
- GROSSMANN, E. *Betrachtungen zur auswärtigen Handelspolitik der Schweiz*. Zeitschr. f. Schweiz. Stat. u. Volkswirtsch., Jg. 63, H. 1, 1927. Reply to criticism of author's works on commercial policy of Switzerland.
- MCDUGALL, F. L. *British trade in the three southern dominions*. United Empire, Apr., 1927. Address delivered before the Royal Colonial Institute, in which is pointed out the value of the three southern dominions to Great Britain, both on the basis of total trade and on the quality of goods purchased.
- SCAGNETTI, G. *La politica commerciale ed il commercio estero dell' Inghilterra*. Riv. di Pol. Econ., Mar., 1927. Pp. 13.
- Future of American foreign trade*. Commerce Mo., May, 1927. Competition very strong in domestic market. Greatest asset in building up a prosperous foreign business will be growth of wealth everywhere in world.

Railways and Transportation

(Abstracts by J. H. Parmelee)

- ALLIX, G. *Les chemins de fer français et la guerre*. Rev. Pol. et Parl., June 10, 1927. Pp. 6. Review of certain volumes dealing with war activities of French railways, 1914 to 1918.

- DENN, S. O. *The man problem*. Ry. Age, June 11, 1927. Pp. 6.
- FOCK, A. *The Trans-African and Trans-Sahara Railways*. Bull. Internat. Ry. Congress Assoc., Feb., 1927. Pp. 12. With map, charts, and statistics for 1925.
- FOSS, C. W. *The Canadian Pacific*. Ry. Age, June 4, 1927. Pp. 10.
- GREEN, F. *New styles in bridges*. World's Work, June, 1927. Pp. 8. Bridges have proved the only fully satisfactory device for relieving metropolitan communities of traffic congestion; many of the great new bridges are built on land, and thus are really raised highways for express automobile traffic.
- HUNGERFORD, E. *Railroading—then and now*. Sat. Eve. Post, June 18, 1927. Pp. 9. Historical developments since 1870, woven round F. D. Underwood, retiring president of the Erie Railroad.
- KINOSUKE, A. *South Manchuria Railway—a line of destiny*. Ry. Age, Apr. 23, 1927. Pp. 4.
- LAYING, C. *Railways on west bank of Mississippi suffer heavy flood losses*. Ry. Age, May 21, 1927. Pp. 6. Effect of floods on railway facilities and operations, with map and illustrations.
- LYNE, J. G. *Canadian National looks to future*. Ry. Age, June 4, 1927. Pp. 8.
- MURPHY, E. J. *Railways expanding and improving service, but are not earning fair return on investment*. Aera, May, 1927. Pp. 23. Review of electric railway operation in 1926, covering 32,000 miles of track, with statistical tables.
- NOUVION, G. DE. *Les comptes des chemins de fer de l'Etat et du réseau d'Alsace et de Lorraine en 1925*. Jour. des Econ., Mar. 15, 1927. Pp. 14. Review of the two French government systems.
- . *Les grandes compagnies de chemins de fer en 1926*. Jour. des Econ., May 15, 1927. Pp. 50. Each of the five principal French private lines improved its financial position between 1925 and 1926.
- RIGGS, H. E. *Are accounting reserves sound?* Ry. Age, May 14, 28, 1927. Pp. 3, 2.
- ROBERTSON, C. G. *Transport in England*. Modern Transport, May 28, 1927. Pp. 3. Brief historical survey.
- STARK, C. W. *How regulate the bus and truck?* Nation's Bus., June, 1927. Pp. 3.
- WATERMAN, R. *Railroad valuation to the fore*. Nation's Bus., June, 1927. Pp. 4.
- WEDGWOOD, R. L. *The railway strike in Great Britain*. Bull. Internat. Ry. Congress Assoc., Jan., 1927. Pp. 8. Description of the railway aspects of the British general strike of 1926.
- Effect of electrification on the budget and on the balance sheet of the Swiss Federal Railways for 1927*. Bull. Internat. Ry. Congress Assoc., 1927. Pp. 6. What the savings from electrified operation have been.
- Die Eisenbahnen der Schweiz in den Jahren 1923 und 1924*. Archiv f. Eisenbahnw., May-June, 1927. Pp. 9. Review of Swiss railway results.
- Die polnischen Staatsbahnen, 1922-1924*. Archiv f. Eisenbahnw., May-June, 1927. Pp. 6. Polish railway statistics.
- Railroad consolidation*. Index, June, 1927. Pp. 4.
- Stabilization of employment*. Ry. Age, June 25, 1927. Pp. 3. Report of a special committee of railway presidents to Association of Railway Executives.

Public Utilities

(Abstracts by Charles S. Morgan)

- ALLEN, C. *Measuring service in units of time.* Telephony, Apr. 23, 1927. Pp. 5. Advantage of telephone rates which take into consideration the length of the individual call.
- BEMIS, E. W. *Going value in rate cases in the Supreme Court.* Columbia Law Rev., May, 1927. Pp. 17. An analysis of twelve decisions. "The first eleven... indicate that the ...only going value contemplated by the Court was measured by the overheads required for assembling the plant and by the relatively small cost of organization;" in the Indianapolis Water Company case the Court's own precedents were either misinterpreted or ignored, rendering the decision of doubtful conclusiveness.
- BIBBINS, J. R. *Problems of mass traffic.* Elec. Ry. Jour., Apr. 23, 1927. Pp. 3. A highly suggestive discussion of the problem of securing a more effective use of our streets by various means of transportation.
- BONBRIGHT, J. C. *The problem of judicial valuation.* Columbia Law Rev., May, 1927. Pp. 30. A broad, suggestive discussion of types of judicial valuation and of how far distinctions between "values" for different purposes are justified.
- BURKE, M. A. *Relief from paving charges by states and communities.* Aera, May, 1927. Pp. 9. Chronological summary of relief granted from franchise requirements.
- CAROT, P. *The bogey of "the power trust."* Annalist, May 13, 1927. P. 1. "As a matter of fact, there is no power trust, and under existing conditions of public utility regulation, it would be harmless if there were."
- . *Electric rates and holding companies.* Annalist, May 27, 1927. Pp. 2. Regulation and practical business considerations protect against exorbitant rates; the holding company makes many useful contributions.
- COLE, A. B. *Determination of ton-mile freight cost.* Elec. Ry. Jour., May 7, 1927. Pp. 2. Factors involved in making electric railway rates.
- DANIELS, J. J. *The Indianapolis water company rate case.* Jour. Am. Water Works Assoc., May, 1927. Pp. 9. "Upon all these questions (present value, reasonable rate of return, going value, depreciation, etc.) the water company decision is a clear-cut precedent."
- DEWING, A. S. *Certain economic advantages arising from the private ownership of water companies.* Jour. N. E. Water Works Assoc., March, 1927. Pp. 12. A spirited arraignment of the publicly owned water plant.
- DORAU, H. B. *The rise and decline of municipal ownership in the electric light and power industry of Wisconsin.* Jour. Land and Pub. Utility Econ., May, 1927. Pp. 9. A detailed history of municipal ownership in electric field in Wisconsin. Marked decline since 1917 attributed mainly to technologic changes which work against the small isolated plant.
- ERICKSON, H. *Principles of group utility management.* Elec. World, May 28, 1927. Pp. 16. An interesting case study of the economies in management and operation achieved through centralized control.
- FINLEY, C. A. *Effect of state and federal regulation of public utilities on commerce and engineering.* Aera, April, 1927. Pp. 5. Stages in the evolution of utility regulation and present problems.
- GARDNER, B. H. *Some experiences with two-part gas rates.* Gas Age-Record, June 4, 1927. Pp. 4. Advantages of gas rates that include a minimum service charge to build up the business of the unprofitable small consumer.

GOLDBERG
Ry. J
chuset
costGRAY,
Aera,
and coGRESSEN
1927.
locati

1927.

GUERNSEY
Feb.,HOPKIN
Pp. 4KEEZER
doctr
involv
indic
typesLILIENTHAL
Law
and v
vehicMcCABE
Jour
profiONKEN
Nat.
powePATTON
of in
tinu
cent
capiPATTON
and
tracRICHTER
Pub
showRIEGER
Pp.
advROSEN
Pen
byRYAN
Pp.
Wa

- GOLDBERG, L. *Reproduction cost unsatisfactory as basis for rate making.* Elec. Ry. Jour., May 28, 1927. Pp. 2. A forceful statement by member of Massachusetts Department of Public Utilities of the case against use of reproduction cost.
- GRAY, H. M. *Some problems of public utility education in the social sciences.* Aera, June, 1927. Nat. Elec. Light Assoc. Bull., June, 1927. Pp. 7, 5. Purposes and content of instruction in public utility economics.
- GRESSENS, O. *The net earnings of light and power utilities.* Annalist, Apr. 8, 1927. Pp. 2. Ratio of net to gross earnings according to size, character, and location of companies.
- _____. *The distribution of income in public utilities.* Annalist, Apr. 22, 1927. P. 1.
- GUERNSEY, N. T. *State commission laws regulate rates, not profits.* Va. Law Rev., Feb., 1927.
- HOPKINS, P. F. *Municipal light and power for the small city.* Am. City, Feb., 1927. Pp. 4. Possibilities of the municipal plant under present conditions.
- KREZER, D. M. *Some questions involved in the application of the "public interest" doctrine.* Mich. Law Rev., Apr., 1927. Pp. 26. A review of representative cases involving the legal classification of industries affected with a public interest indicates that there is no "tidy economic pattern" into which "all of the diverse types of enterprises" can be fitted.
- LILIENTHAL, D. E. and ROSENBAUM, I. S. *Motor carrier regulation in Illinois.* Ill. Law Rev., May, 1927. Pp. 34. Methods used in Illinois in meeting the "intricate and vexatious problems of governmental regulation" created by the rise of motor vehicle common-carrier transportation.
- MCCABE, G. K. *California motor transport shows declining profits.* Elec. Ry. Jour., May 14, 1927. P. 1. Despite favoring conditions, low and decreasing profits revealed by state records.
- ONKEN, W. H., JR. *The hydro-electric power era.* Elec. World, May 14, 1927. Nat. Elec. Light Assoc. Bull., June, 1927. Pp. 3, 4. Steam v. hydro-electric power; public v. private development.
- PATTON, A. E. and GRESSENS, O. *A study of utility financial structures: distribution of income.* Jour. Land and Pub. Utility Econ., May, 1927. Pp. 14. A continuation of extensive statistical study of financial structures. Typically, 73 per cent of gross revenues goes for operating expenses, 13 per cent for borrowed capital, and 14 per cent is available for dividends and surplus.
- PATTON, H. S. *Hydro-electric power policies in Ontario and Quebec.* Jour. Land and Pub. Utility Econ., May, 1927. Pp. 13. First installment of an article which traces and appraises the divergent power developments of Ontario and Quebec.
- RICHTER, M. C. *Public utility financing during the year 1926.* Jour. Land and Pub. Utility Econ., May, 1927. Pp. 2. Compact summary of financing since 1919, showing volume, type, yield, and class of issuing utility.
- RIEGER, H. *Phoenix buys street railway for \$20,000.* Nat. Munic. Rev., March, 1927. Pp. 2. Bought to clear the streets for bus operation, the city is finding it advantageous to revamp and operate the property.
- ROSENBAUM, I. S. and LILIENTHAL, D. E. *The regulation of motor carriers in Pennsylvania.* Pa. Law Rev., June, 1927. Pp. 27. Carriers subject to regulation, by whom regulation is exercised, procedure in regulation.
- RYAN, J. A. *A new form of usury.* Catholic Charities Rev., April, May, 1927. Pp. 4, 5. A brief review of the valuation controversy. The recent Indianapolis Water Company decision makes possible many forms of exploitation of the public.

- SHEPPARD, V. S. *The fate of the five cent fare. VI. Toledo rewrites service-at-cost franchise.* Nat. Munic. Rev., Apr., 1927. Pp. 5. Brief account of Toledo's transportation difficulties and of proposed compromise franchise.
- TAYLOR, P. C. *Aspects of public utility income and expense.* Accounting Rev., March, 1927. Pp. 9. A brief accounting analysis of certain significant aspects of utility management and finance.
- THOMPSON, C. D. *Don't give up your power plant.* Pub. Ownership, Jan., 1927. Pp. 10. Fourteen reasons why municipalities should resist the tendency to give up municipal ownership.
- UPDEGRAFF, C. M. *Deductions from the economic basis of public utility rates.* Iowa Law Rev., Apr., 1927. Pp. 22.
- WHERRY, W. M., JR. *Framing rate schedules for public utilities.* Nat. Elec. Light Assoc. Bull., Apr., 1927, Aera, Apr., 1927. Pp. 4, 6. "It is clear....that in the long run the value of the service will inexorably determine the rate.... the service is valued as a whole by ascertaining the cost to reproduce it."
- Graphic illustrations of a small company's progress.* Elec. World, May 28, 1927. Pp. 2. Comparison of results of four years under holding company management and four years under isolated management.
- Holding company operations.* Elec. World, May 28, 1927. Pp. 10. Discussion of organization, policies, savings and other aspects of a specific holding company.
- Municipal water works.* Public Ownership, Apr., 1927. Pp. 2. Statistics of growth of municipal water plants by periods since 1800.
- Price fluctuations in rate-making valuation.* Yale Law Jour., June, 1927. Pp. 4. A brief statement of the issues presented by unstable prices.
- Spot reproduction as the rate base for public utilities.* Columbia Law Rev., June, 1927. Pp. 4. "The equation of spot reproduction cost to 'value' in McCordle v. Indianapolis Water Company is an error which must be corrected if there is to be intelligent regulation of public utility rates." Possibilities of a "modified prudent investment" basis considered.

Accounting

(Abstracts by Arthur W. Hanson)

- ALLEN, C. E. *The growth of accounting instruction since 1900.* Accounting Rev., June, 1927. Pp. 16. A fairly comprehensive history dealing with the United States only.
- BELSER, F. C. *Amortization of discounts on serial bonds.* Jour. Accountancy, May, 1927. Pp. 4. "The practice of amortizing bond discount on the arithmetical basis should be abandoned, and the scientific basis adopted in every case."
- BEXELL, J. A. *Accounting at "Erehwon."* Accounting Rev., June, 1927. Pp. 3.
- BROWN, ROBERT C. *Automobile sales financing.* Jour. Accountancy, July, 1927. Pp. 15. Nature of the business and methods of accounting.
- BROWN, ROY C. *Accounting for a staple-cotton plantation.* Jour. Accountancy, May, 1927. Pp. 8. Describes the growing process and the necessary records.
- DICKINSON, A. L. *The construction, use and abuse of cost accounts.* Jour. Accountancy, July, 1927. Pp. 20. A survey of cost accounting practice and its purposes with special relation to its use in England at the present time.
- FINNEY, H. A. and BAUMANN, H. P. *Answers to examination of American Institute of Accountants in auditing.* Nov. 18, 1926. Jour. Accountancy, May, 1927. Pp. 9.

- . *Solutions to American Institute of Accountants' examination in accounting theory and practice, Part 1, May 19, 1927.* Pp. 14.
- FISCHER, E. S. *Accounting and auditing in China.* Jour. Accountancy, May, 1927. Pp. 6. Limitations of practice; language and money difficulties.
- FISHER, W. C. *Distribution of employee stock ownership.* Am. Econ. Rev., June, 1927. Pp. 2.
- GORDON, S. *Answers to examination of the American Institute of Accountants in commercial law, Nov. 19, 1926.* Jour. Accountancy, May, 1927. Pp. 4.
- LITTLETON, A. C. *The antecedents of double-entry.* Accounting Rev., June, 1927. Pp. 10. "Professor Hatfield spoke very convincingly in that earlier paper concerning double-entry's parentage and immediate associates and we have sketched here its earlier ancestral antecedents to show that blueblood from ancient time runs in its veins."
- LORMER, G. *Accountancy in Australia.* Jour. Accountancy, July, 1927. Pp. 13.
- MARTIN, O. R. *Surplus arising through revaluation.* Accounting Rev., June, 1927. Pp. 13. An examination of the existing situation.
- NEWLOVE, G. H. *Graduate courses in accounting.* Accounting Rev., June, 1927. Pp. 5. "The purpose of the present paper is to ascertain just what graduate courses in accounting are offered by the universities listed by the collegiate department of the United States Bureau of Education as giving graduate work in applied economics."
- OSS, A. VAN. *Public accounting in Holland.* Jour. Accountancy, June, 1927. Pp. 10. "Dutch accountancy is more complicated because of the more involved conditions in a small, commercially long-developed and centrally situated country. International trade and finance, exchange fluctuations, import duties, taxation, tradition, general customs and probably many other causes work together to make them so."
- PLENDER, W. *The accountant's certificate in connection with the accountant's responsibility (continued).* Jour. Accountancy, May, 1927. Pp. 16.
- SMALLS, R. G. H. *Some aspects of depreciation.* Accounting Rev., June, 1927. Pp. 10. "If, under these circumstances, a balance sheet is published without any apparent provision having been made for depreciation there should inevitably be attached (either as a footnote, or in the director's report) a concise explanation of the omission. To include such an explanation is to pay graceful—if sometimes undeserved—tribute to the intelligence of the investing public. To omit it is to presume that no part of the investing public is capable of taking an intelligent interest in what are, after all, its own affairs."
- TAYLOR, J. B. *Some phases of North Dakota's experiment in flour mill operation.* Accounting Rev., June, 1927. Pp. 10. History and outlook.
- WOODBURY, W. F. *A treatment of distribution costs.* Accounting Rev., June, 1927. Pp. 5. A statement of the situation as it exists for the Wahl Company.
- Text of the examination in auditing, law, and accounting presented by the board of examiners of the American Institute of Accountants, May 19 and 20, 1927.* Jour. Accountancy, June, 1927. Pp. 17.

Business Management

- COOKE, M. L. *Morale as a factor in time study technique.* Bull. Taylor Soc., Apr., 1927. Pp. 13.
- DUNCAN, C. S. *New elements in American business efficiency.* Harvard Bus. Rev., Apr., 1927. Pp. 12.
- EPSTEIN, R. C. *Leadership in the automobile industry.* Harvard Bus. Rev., Apr., 1927. Pp. 12.

- RICHE, A. B. *Personnel problems of staff men in industry.* Bull. Taylor Soc., Apr., 1927. Pp. 2.
- VAILE, R. S. *The use of advertising during depression.* Harvard Bus. Rev., Apr., 1927. Pp. 13.
- WHITE, J. C. *Scientific management in the coal industry.* Bull. Taylor Soc., Apr., 1927. Pp. 8.
- Operating expenses of cooperative societies.* Mo. Lab. Rev., May, 1927. Pp. 4.
About the same as in private stores, after a more rapid increase.

Labor and Labor Organizations

(Abstracts by Walter J. Couper)

- BELASCO, P. S. *Note on the labour exchange idea in the seventeenth century.* Econ. Jour. (Supp.), May, 1927. Pp. 5.
- BERGENGREN, R. F. *Credit coopération as applied to the needs of the worker.* Internat. Lab. Rev., May, 1927. Pp. 32. Workers need credit and lack adequate credit facilities. Present facilities are remedial loan societies, private lenders operating under regulatory law, especially the Uniform Small Loans law, loan sharks and credit unions. The work of credit unions is described and analyzed; and it is concluded that "the problem in the U. S. is reduced to one of quantity of credit unions."
- BEYER, O. S. *Management and labor coopération on the railroads.* Industrial Manag., May, 1927. Pp. 7.
- BONDFIELD, M. G. *Women in industry in Great Britain.* Am. Fed., May, 1927. Pp. 4. Peak of women membership of trade unions and of wages was reached in 1920. Membership reached low point in 1925. Comments on effectiveness of trade board protection on joint industrial councils.
- CALÓN, E. C. *El problema económico de las penas de privación de libertad.* Riv. Nac. de Econ., Jan.-Feb., 1927. Pp. 9. The rational and economic use of penal labor.
- FUSSELL, G. E. *The change in farm labourers' diet during two centuries.* Econ. Jour. (Supp.), May, 1927. Pp. 7. "The advantages of civilization seem to have passed over the head of the agricultural laborer." Very little change or improvement except the addition of potatoes.
- GEMMILL, P. F. *Types of actors' trade unions.* Jour. Pol. Econ., Apr., 1927. Pp. 5. Survey of a little known field. Nearly all of eight associated organizations enforce the closed shop. Vaudeville organization the weakest perhaps because of the "self-sufficiency of vaudeville actors as contrasted with the interdependence of dramatic players."
- GEORGE, M. D. *The combination laws reconsidered.* Econ. Jour. (Supp.), May, 1927. Pp. 15. "Effect has been greatly over-estimated." The Acts of 1799-1800 represent no change of policy, and were less oppressive and less frequently invoked than such others as, for example, the Statute of Artificers.
- . *The London coal-heavers: attempts to regulate waterside labour in the 18th and 19th centuries.* Econ. Jour. (Supp.), May, 1927. Pp. 20.
- HENDERSON, A. *Anti-trade union bill in committee.* Labour Mag., June, 1927. Pp. 4. Criticism and analysis of the first six clauses as amended.
- MACARA, C. *Trade Union bill.* Bus. Organ. and Manag., June, 1927. Pp. 1. Criticism of the bill by the ex-president of the Master Cotton Spinners Federation.

- MAGNUSSON, L. *Work of the International Labor Office*. Mo. Lab. Rev., May, 1927. Pp. 16.
- MINAHAN, T. *The teacher goes job-hunting. I and II*. Nation, May 25, June 1, 1927. Pp. 2, 2. The labor contract in its most restrictive form.
- MODIGLIANI, G. E. *Compulsory trade unionism*. Lab. Mag., June, 1927. Pp. 4. Criticism of the fascist program.
- PERSONS, C. E. *Labor problems as treated by American economists*. Quart. Jour. Econ., May, 1927. Pp. 32. An excellent review of twelve recent books such as Furniss, Blum, Catlin, Hoopingarner. The reviewer records—despite his appreciation of most of the work—"a persistent sense of disappointment. . . . They do not advance us beyond the line of today."
- PHILIP, A. *L'industrie de l'habillement aux Etats-Unis*. Rev. des Etudes Coop., Jan.-Mar., 1927. Pp. 28. A chapter from a forthcoming book on the labor movement in America. A good summary of the history and organization of trade, of the U. G. W. and the A. C. W. Discusses the Hart-Schaffner-Marx agreement and the unionization of Golden-Rule Nash.
- PLUMMER, A. *The general strike during one hundred years*. Econ. Jour. (Supp.), May, 1927. Pp. 21. Good summary of its history, especially in England. Special reference to William Benbow, Robert Owen and the Chartists.
- POLLETT, H. *The Trade Unions bill: a plan of action*. Labour Mo., June, 1927. Pp. 5. Left-wing criticism of the opposition leadership. Advocates "the workers' real weapon of defence and attack—the general strike."
- RAJ, M. *The labour problem in India*. Indian Jour. Econ., Oct., 1927. Pp. 6. Labor unrest in 1920-21 explained in terms of appalling poverty. Attempts a statistical indication of inadequate income, food and housing. Improvement of conditions since then has not checked unrest because of a change in mental outlook.
- RICH, A. B. *Personnel problems of staff men in industry*. Bull. Taylor Soc., Apr., 1927. Pp. 2.
- SIEFART, H. *The administration of labour law in Germany*. Internat. Lab. Rev., May, 1927. Pp. 27. Discussion of the extensive and complicated system of special courts for dealing with disputes concerning labor matters and other agencies of administration and enforcement. The system is in process of reorganization under the Labour Courts act. To be continued.
- SKELTON, N. *The Labour party*. Quart. Rev., Apr., 1927. Pp. 15. The party is in fact a caucus and "will infallibly prove itself the deadly enemy of an organic and living democracy."
- STOCKING, G. W. *Labour problems in the American coal industry*. Econ. Jour., June, 1927. Pp. 13. "Competition has made inevitably for confusion. . . . The union is today facing a crisis. . . . for the alleviation of which no adequate measures are being taken."
- STOLBERG, B. *The collapse of the needle trades*. Nation, May 4, 11 and 18, 1927. Pp. 8. The one ray of hope seems to be in the Amalgamated.
- TRACY, H. *Trade unionism produces a statesman*. Labour Mo., June, 1927. Pp. 3. J. R. Clynes.
- TYLDESLEY, S. *Working-class savings*. Bankers' Mag. (London), June, 1927. Pp. 2.
- VILLEY, E. *Chronique du syndicalisme*. Rev. Pol. et Parlementaire, Apr., 1927. Pp. 10. The different points of view of the employees and workers associations. The current program of the C. G. T. represents a new departure by recognizing the price basis of the post-war crisis, and urges a program for its immediate relief similar to that of the C. F. T. C. The C. G. T. U. urges a futile communism.

- WILLARD, D. *The new executive viewpoint in labor relations.* Indust. Manag., May, 1927. Pp. 4.
- WILLIAMS, H. H. *High wages and prosperity.* Indust. Manag., June, 1927. Pp. 3. "Transparent delusion that high wages mean higher costs."
- Bibliography on workers' leisure.* Mo. Lab. Rev., Mar., 1927. Pp. 10.
- Displacement of labor in the glass industry.* Mo. Lab. Rev., Apr., 1927. Pp. 13.
- How the trade unions fight unemployment.* Internat. Trade Union Mov., May, 1927. Pp. 11. Report compiled by I. F. T. U.
- Lönestatistiken i vissa främmande länder.* Soc. Med., No. 5, 1927. Pp. 17. Presents in summarized form wage statistics of Norway, Denmark, Finland, Germany, England, United States and Canada.
- Minimum wages and the International Labour Conference.* Internat. Lab. Rev., May, 1927. Pp. 12. A review of the chief problems likely to occupy the International Labour Conference when dealing with the subject of minimum-wage-fixing machinery. It indicates a general tendency to set up some form of machinery for trades in which wages are unduly low, and in which there is no effective collective bargaining.
- Reminds of involuntary servitude.* New Repub., Apr., 1927. Analysis of the Bedford Stone Cutters case.
- Trade union membership in Canada.* Labour Gaz. (Canada), Apr., 1927. Pp. 5. Summary of annual report. Steady increase since 1924.

Money, Prices, Credit, and Banking

(Abstracts by William O. Weyforth)

- BAUDIN, L. *L'Angleterre après la crise minière et la querelle des banquiers.* Rev. d'Econ. Pol., Jan.-Feb., 1927. Pp. 14. Based upon the addresses of the chairman of the large British banks to their stockholders. Particular attention is given to the views of Mr. McKenna to the effect that the productive activity of a country is conditioned principally by its monetary policy and that the bank law of 1844 ought to be revised. The opposing views of Mr. Goodenough are also stated.
- BOGEN, J. I. *McFadden law permits split-up of bank stocks.* Annalist, Feb. 18, 1927. Pp. 2. The McFadden act not only permits the payment of stock dividends by national banks but also the issuance of shares with a par value of less than \$100. The latter provision makes possible the split-up of the stocks of banks whose market price is high, thereby widening the market for such stocks.
- CHLEPNER, B. S. *La dépréciation et la stabilisation du franc belge.* Rev. d'Econ. Pol., Jan.-Feb., 1927. Pp. 35. An exposition of the general features which characterized the monetary situation in Belgium since the war, the circumstances under which stabilization was undertaken and the manner in which it was realized.
- CLAOUÉ, R. *De la distribution du crédit par les banques américaines.* Rev. d'Econ. Pol., Jan.-Feb., 1927. Pp. 15. Study of the balance sheet ratios employed by American banks in the granting of credit to borrowers.
- CRISSINGER, D. R. *New trends in American banking.* Trust Companies, Mar., 1927. Pp. 4. The change in the business of member banks in recent years has been characterized by an increased use of their resources in long-time investments and in loans not arising out of the current requirements of trade and industry and by an increase in the proportion of their liabilities in the form of time deposits. There has been a tendency toward a continuous decrease in the proportion of paper eligible for rediscount.
- DAVIDSON, J. M. *The story of depreciating currencies.* Jour. Inst. Bankers, Apr., 1927. Pp. 9. Brief sketch of the depreciation and restoration of the currencies in Germany and Austria.

- EINAUDI, L. *Prestiti esteri e bilancia dei pagamenti internazionali*. Rif. Soc., Mar.-Apr., 1927. Pp. 15. Foreign loans public and private and the payment of international balances.
- HAWTREY, R. G. *The gold standard. IV*. Jour. Inst. Bankers, Apr., 1927. Pp. 15. Considers the problem of stabilizing the gold standard as recommended at the Genoa Conference in 1922. Also states the arguments against Mr. Keynes's proposal of a "managed" currency not tied to the gold standard.
- . *The monetary theory of the trade cycle and its statistical test*. Quart. Jour. Econ., May, 1927. Pp. 16. This includes two principal theses: (1) that certain monetary or credit movements are necessary and sufficient conditions of the observed phenomena of the trade cycle; and (2) that the periodicity of these phenomena can be explained by purely monetary tendencies, which cause the movements to take place in succession and to be spread over a considerable period of years. Author outlines the nature of the statistical material necessary to support this theory.
- HOFF, H. A. *Problems of bank organization*. Bull. Taylor Soc., Apr., 1927. Pp. 23. Summarizes the problems involved in the organization and management of banks, particularly the larger institutions. Considers their solution through the practical application of the principles of management.
- JACK, D. T. *Economics in relation to banking and finance*. Scottish Bankers Mag., Apr., 1927. Pp. 9. Shows the relationship between monetary instability and dislocation of the national finances. Both must be considered as different aspects of the same problem. Methods of stabilizing currency and balancing the budget are discussed.
- JONES, G. *Intermediate credit for financing our foreign trade*. Am. Bankers Assoc. Jour., Apr., 1927. Pp. 3. The creation of a new type of financial institution, prepared to grant credits ranging from six months to five years, would enable American manufacturers to meet the competition of their European rivals. Such an institution could be set up under the Edge law.
- LICHTENSTEIN, W. *Real estate loans under McFadden act*. Trust Companies, Mar., 1927. Pp. 3. An interpretation of the investment powers of national banks under the McFadden act and of the real estate loan provisions of the act.
- LYAUTEY, P. *Quelques aspects de la révolution monétaire dans l'Europe contemporaine*. Le Musée Soc., Mar., 1927. Pp. 5. A summary of the lecture of M. Lyautey before the Musée Social. Observations on the monetary situation in various European countries.
- McKEE, H. H. *New provisions of McFadden act call for caution*. Trust Companies, Apr., 1927. Pp. 3. Considers investments to be made of savings deposits under provisions of McFadden act.
- MACROSTY, H. W. *Inflation and deflation in the United States and the United Kingdom, 1919-23*. Jour. Royal Stat. Soc., Jan., 1927. Pp. 90. The financial history, first of the United States and then of the United Kingdom, is traced in considerable detail for the years 1919-1923. The author concludes that it was not the deflation of credit which produced the fall in prices, with the consequent ruin of industry; the "great silent strike" of the common people (the buyers' strike) deflated prices, and the deflation of credit followed.
- . *Submerged information: banking*. Jour. Royal Stat. Soc., Mar., 1927. Pp. 7. Points out need for more statistical information in England with reference to bankers' balances at Bank of England, differentiation between current accounts and time deposits of the joint stock banks and differentiation between commercial bills and treasury bills discounted.
- MASSÓ, C. *Cinco años de ordenación bancaria*. Rev. Nac. de Econ., Mar.-Apr., 1927. Pp. 20. The Bank of Spain and Spanish currency from 1922 till 1926.

- METZ, S. *Credit policy and elasticity here and in the United States—some reflections on Mr. McKenna's comparisons.* Bankers' Mag. (London) Mar., 1927. Pp. 11. An attempt is made to compare possible credit expansion in England and in the United States on the assumption of an increase of £1,000,000 to the gold holding of the central bank in each country.
- PAYEN, E. *La production mondiale de l'or et sa répartition.* L'Econ. Franç., Apr. 30, 1927. Pp. 2. Gives statistics showing production of gold by country in 1926, and also production by country since 1600.
- PLATT, E. *Unforeseen development in the federal reserve system.* Am. Bankers Assoc. Jour., May, 1927. Pp. 4. The Federal Reserve act has in practice worked out differently from what the framers of the act expected.
- PRESTON, H. H. *The McFadden Banking act.* Am. Econ. Rev., June, 1927. Pp. 19.
- RICHARDS, R. D. *The evolution of paper money in England.* Quart. Jour. Econ., May, 1927. Pp. 44. Traces the development of negotiable paper in England in the seventeenth century.
- SCHWARZENBACH, E. *The recent economic recovery of Germany and its effects on the German banks.* Bankers Mag., May, 1927. Pp. 13. Surveys improved economic conditions in Germany during 1926, and forecasts continued improvements.
- SOKOLOFF, A. *Zwei Beiträge zur Theorie der Umlaufgeschwindigkeit des Geldes.* I. Archiv f. Sozialwis. u. Sozialpolitik, Feb., 1927. Pp. 24. Considers the problem of whether the velocity of circulation of money can undergo a change when the quantity of money and of goods remains the same.
- SPARKS, E. S. *New law for guaranteed double liability in South Dakota.* Am. Bankers Assoc. Jour., May, 1927. Pp. 2. The former deposit guaranty law is modified so that the guaranty fund built up by assessments paid to the Guaranty Fund Commission remains the property of the individual bank contributing those funds. Since the size of the fund will ultimately be equal to the capital stock of the bank, this will insure double liability of stockholders. However, since the old double liability law is still retained, there will virtually be treble liability of stockholders. The Banking Commission has been given enlarged powers.
- VAN GIJN, A. *De Schatkist en de Nederlandsche Bank.* De Econ. (Dutch), May, 1927. Pp. 23. Outlines the relationship of the Dutch national exchequer to the Netherlands Bank with special references to bank note issue.
- WADLA, P. A. *The gold standard and the gold exchange standard.* Indian Jour. Econ., Oct., 1926. Pp. 14. Writer thinks that there is danger of inflation under a gold exchange standard. Gold standard is advocated.
- WILLIS, H. P. *Federal reserve system's policy encourages unbridled speculation.* Mag. Wall St., May 7, 1927. Pp. 5. Since 1921 the federal reserve system has allowed the funds of its members to seep into the speculative field instead of endeavoring to restrain and redirect them. The level of prices in the stock market of the United States is now exaggerated beyond what is warranted by present or prospective yield or by "intrinsic" or "book" worth.
- *Irish currency reform.* Bankers' Mag. (London), Mar., 1927. Pp. 8. The currency reform proposed by the Irish Free State Banking Commission, of which Professor Willis is chairman, provides for the issue of Irish legal tender notes, secured by an equal amount of British government securities and redeemable in British legal tender notes. The privilege of issuing bank notes is to be extended to all of the Irish banks.
- X. *Le rapport de la Banque de France.* Jour. des Econ., Feb. 15, 1927. Pp. 12. A summary of the report of the Bank of France for the year 1926, describing the monetary policy of the bank, the economic situation, the necessity for reducing the note circulation secured by loans to the state.

YOUNG, A. A. *The control of the federal reserve system*. *Annalist*, May 6, 1927. Pp. 2. In exercising powers of credit control, it would be dangerous for the federal reserve officials to rely upon any simple rule or set of rules. What the federal reserve banks need most is the opportunity to develop a sound tradition and to establish it firmly.

Monetary review. *Bankers' Mag.* (London), May, 1927. Pp. 11. A review of factors in the English money market in April, 1927.

Public Finance

(Abstracts by Charles P. Huse)

BARD, A. S. *Tall taxes for tall buildings*. *Nat. Munic. Rev.*, Apr., 1927. Pp. 8. These surtaxes will apply to buildings erected before changes in zoning laws, and should discourage the exploitation of a neighborhood.

BERTIN, G. E. *Le budget de la Ville de Paris*. *L'Econ. Franç.*, Apr. 9, 1927. Pp. 2. Increased expenditures in the Paris budget have been met by increases in the centimes additionnels, the octrois remaining unchanged.

COATES, W. H. *Report of the Committee on National Debt and Taxation*. *Jour. Royal Stat. Soc.*, Mar., 1927. Pp. 12. Finds that direct taxation is not a main cause of industrial depression and that the burden of indirect taxation is light except in the case of the sugar duty. The appropriation for amortization should be gradually increased.

COOKE, T. *Taxation of farms and banks*. *Am. Bankers Assoc. Jour.*, Apr., 1927. Pp. 4. Both are heavily taxed; the farms because they are tangible and the banks because their values are disclosed in official reports.

GIBLIN, L. F. *Federation and finance*. *Econ. Record*, Nov., 1926. Pp. 16. Discusses the problems involved in adjusting the financial burdens between the Australian commonwealth and its component states, with some reference to British, Canadian and American experience.

HEER, C. *Are we spending too much for government? II. State expenditures—has their upward climb been justified?* *Nat. Munic. Rev.*, May, 1927. Pp. 7. Finds this increase, even more rapid from 1915 to 1925 than in the case of cities, largely justified.

HUNTER, M. H. *Le système fiscal des Etats-Unis d'Amérique*. *Rev. de Sci. et de Légis. Finan.*, Jan.-Mar., 1927. Pp. 14. Covers the period since 1913.

JÈZE, G. *Le remboursement de la dette publique en France de 1875 à 1914*. *Rev. de Sci. et de Légis. Finan.*, Jan.-Mar., 1927. Pp. 65. While the establishment of a stable government has improved French finances, it has not brought a rational system of debt repayment.

KAMEE, M. *Double taxation with special reference to its international aspects*. *Kyoto Univ. Econ. Rev.*, Dec., 1926. Pp. 74. Double taxation may be practised by the same or by different taxing authorities; it may in some cases be just, in others, unjust. Direct taxes should be divided equally by international agreement between the state of residence and that of the location of the tax-object.

KEDDY, J. L. *Are we spending too much for government? I. The trend of federal expenditures*. *Nat. Munic. Rev.*, Apr., 1927. Pp. 5. During the next twenty-five years federal expenditures should gradually increase from the present irreducible minimum of \$3,500,000,000.

MARTIN, J. W. *The motor vehicle registration license*. *Bull. Nat. Tax Assoc.*, Apr., 1927. Pp. 16. Traces its history in the United States, giving the amounts received by the various states from 1913 to 1926.

- OUALID, W. *Les solutions internationales du problème des doubles impositions*. Rev. de Sci. et de Légis. Finan., Jan.-Mar., 1927. Pp. 27. Describes the progress already made in preventing double taxation by federal laws or international agreements, and discusses the recent report of the committee appointed by the League of Nations.
- PATON, T. B. *State taxation of national bank shares*. Am. Bankers Assoc., Jour., Apr., 1927. Pp. 4. Recent decisions show that the banks must establish discrimination in favor of other moneyed capital in substantial competition in order to secure relief.
- RAPPOPORT, A. S. *The financial policy of France*. Finan. Rev. Rev., Apr.-June, 1927. Pp. 11. By holding firmly to a policy of reducing expenditures and increasing revenues, Poincaré has rescued France from a severe financial storm.
- SÖRENSEN, K. E. *Nyprotektionismens økonomiske baggrund*. Nat. ök. Tids., Nos. 1 and 2, 1927. Pp. 19. Does not believe that modern industry with its great dependence on fixed capital is adapted to free, international competition, but considers it important to find means to overcome the disadvantages of protection and to find where protective tariffs may do the most good and the least harm.
- WILLIAMS, F. B. *The legality of a surtax upon buildings of excessive volume*. Nat. Munic. Rev., Apr., 1927. P. 1. Believes it unlikely that any basis for a legal classification can be found.

Insurance

(Abstracts by F. E. Wolfe)

- ADAMS, C. *Life insurance as an economic force*. Weekly Underwriter, May 14, 1927. Pp. 3. Supplements other finance institutions with funds they cannot otherwise command.
- ARENA, C. *L'emigrazione e la Società delle Nazioni*. Riv. Internat. di Sci. Soc., Mar.-Apr., 1927. Pp. 58.
- BOHMER, E. *Betrachtungen über die deutschen Sterbetafeln, 1926*. Zeitschr. f. d. Ges. Versich. Wis., Apr., 1927. Pp. 10.
- CULMER, F. G. *Reforming insurance law*. Bankers' Mag. (London), May, 1927. Pp. 9. Board of Trade Committee changes recommended in bill for repeal of 1909 Assurance Companies act. Affects all types of insurance and methods.
- . *Suggested system of financing long-term credits. Coöperation of the banks*. Bankers' Mag. (London), Apr., 1927. Pp. 6. Describes private scheme of credit insurance providing for financial risk to be shared by sellers, insurers collaborating with banks.
- DAVIDSON, R. O. *Installment purchase accident insurance*. Proc. Cas. Act. Soc., Nov., 1926. Pp. 7. Protects both parties against effect of accidental death and disability of purchaser on deferred payment plans.
- DINGMAN, H. W. *Some practical points about examining*. Spectator, May 19, 1927. Pp. 2. Determining insurability means practice of prognostic medicine.
- FLEISHMAN, P. *Die Bedeutung des Blutdrucks für die Lebensversicherungs-Medizin*. Zeitschr. f. d. Ges. Versich. Wis., Apr., 1927. Pp. 16. Shows conditions and limits of significant blood pressure.
- GARRISON, F. S. *Plate glass experience rating*. Weekly Underwriter, June 18, 1927. Pp. 3. Recent application of experience rating corrects defect in established plate glass underwriting.
- HOFFMAN, F. L. *Earthquake hazards and insurance*. Spectator, June 2, 1927. Pp. 2. Specifies needs to make knowledge practical for insurance purposes.

- _____. *The homicide record for 1926*. Spectator, June 2, 1927. Pp. 2. Comments on tabular data for 119 cities for 1925 and 1926.
- HUEBNER, S. S. *Insurance a riddle to many economists*. Weekly Underwriter, May 7, 1927. Pp. 2. Comments on functions.
- LINCOLN, L. A. *Meaning of life insurance service*. Weekly Underwriter, June 11, 1927. Pp. 3. Shows wide range of individual and social benefits.
- LORIGA, G. *The place of sickness insurance in the national health system*. Internat. Lab. Rev., May, 1927. Pp. 17.
- MICHELBAEHR, G. F. *"Moral hazard" of casualty insurance*. Proc. Cas. Act. Soc., Nov., 1926. Pp. 13. Moral hazards need strict definition for control.
- ROESCH, W. E. *Sidelights on aviation insurance*. Spectator, May 12, 1927. Pp. 2. Describes conditions. Four companies accept aircraft business.
- TAEFFNER, W. *Das Problem der Arzteversicherung*. Zeitschr. f. d. Ges. Versich. Wis., Apr., 1927. Pp. 9.
- ZIEBICH, O. *Die neue osterreichische Angestelltenversicherung*. Zeitschr. f. d. Ges. Versich. Wis., Apr., 1927. Pp. 13. Describes scope and object of recent act and regulations governing employment insurance.
- YOUNG, C. N. *The prognostic value of schedule rating*. Proc. Cas. Act. Soc., Nov., 1926. Pp. 8. Saving from abolishing schedule rating too insignificant in comparison with prognostic value.
- Le Assicurazioni Sociali*. (Rome: Cassa Nazionale per le Assicurazioni Sociali.) Jan.-Feb., Mar.-Apr., 1927. Pp. 196, 220. A valuable publication showing what is being done in Italy and elsewhere to safeguard the working classes. The famous carta di lavoro, the fascist proclamation of April, 1927, is given *in extenso*. These numbers contain much information as to what is being done in the way of state insurance against invalidity and old age.
- Group insurance experience of various establishments*. Mo. Lab. Rev., June, 1927. Pp. 11. Summarizes group term life insurance plans of some 400 establishments in 1926.
- Municipal insurance schemes*. Policyholder (Manchester, Eng.), Apr. 27, 1927. Pp. 8. Results of several boroughs' experience show little economy in rates, poorer service and heavy risk.
- Old age pensions in Canada*. Labour Gaz. (Canada), Apr., 1927. Pp. 4. Federal-Provincial pension \$20 per month to destitute over 70.

Statistics

(Abstracts by Harry Jerome)

- ANDERSON, M. D. *Economics of business fluctuation in the United States, 1919-1925*. Am. Econ. Rev., June, 1927. Pp. 42.
- ATYER, L. P. *The dilemma of the new statistics*. Jour. Am. Stat. Assoc., Mar., 1927. Pp. 8. Presidential address. The new statistics is necessarily complex in method, but unnecessarily lacking in lucidity of presentation.
- BANKER, H. J. *The competitive factor in skewness*. Jour. Am. Stat. Assoc., Mar., 1927. Pp. 13. The distribution of records in horse races and human running contests shows the mode skewed toward the end to be attained.
- BERRIDGE, W. A. *Factory labor turnover: two new monthly indexes*. Mo. Lab. Rev., Mar., 1927. Pp. 5. Description of indexes of labor turnover rates compiled by Brown University Bureau of Business Research and the Metropolitan Life Insurance Co.

- BOASOON, J. J. *De controle-cijfers van de Russische volkshuishouding voor het jaar 1926-1927*. De Econ. (Dutch), May, 1927. Pp. 33. A study of the Russian economic statistics for the year 1926-27 under the headings: industry, agriculture, fuel, transportation, commerce, labor, etc.
- BOLDRINI, M. *Dubbi intorno ad alcune leggi demografiche*. Metron, Vol. V, No. 2, 1925. Pp. 25. The excess of males over females in living births is apparently even greater among stillbirths and miscarriages; but it seems probable not that many more males are conceived but that the mortality among females is greater in the early stages of development.
- CRUM, W. L. *An iron producer and the business cycle*. Harvard Bus. Rev., Apr., 1927. Pp. 10. The Cambria blast furnace plant, operated in connection with steel works, shows sensitive reactions to business conditions closely similar to those of the pig iron industry as a whole.
- DUNSTAN, W. R. *Height and weight of school children in an English rural area*. Metron, Vol. V, No. 2, 1925. Pp. 17. Simple and multiple (age, height, and weight) correlation studies.
- EZEKIEL, M. *Two methods of forecasting hog prices*. Jour. Am. Stat. Assoc., Mar., 1927. Pp. 9. Compares the results obtained by use of a forecasting formula empirically determined by multiple correlation analysis and forecasting by the more flexible method of a synthetic demand curve.
- FEIGIZ, P. P. L. *I cognomi di S. Gimignano*. Metron, Vol. V, No. 2, 1925. Pp. 39. A study of the degree to which surnames survived in this commune, 1450 to 1800.
- GREENWOOD, M. *The growth of population in England and Wales*. Metron, Vol. V, No. 2, 1925. Pp. 20. Estimates of death and birth rates indicate that the changing age structure due to the declining birth rate will cause within six or seven years the beginning of a rise in the general death rate which will continue until the population is stationary.
- HARRIS, J. A. *The calculation of moments about the mean as origin*. Jour. Am. Stat. Assoc., Mar., 1927. Pp. 4. A simple method of calculation based on the rough moments about zero as origin.
- HUHN, R. von and CROXTON, F. E. *Further studies in the graphic use of circles and bars*. Jour. Am. Stat. Assoc., Mar., 1927. Pp. 9. Mr. von Huhn points out that the Bell's experiment, presented in an earlier issue, did not adequately allow for the advantages of the bar chart because no scale was used; the sectors were not labeled, and comparisons of distribution were not attempted. Mr. Croxton summarizes the results of an experiment indicating greater accuracy for estimating ratios from bar charts than from pie diagrams.
- KING, W. I. *The price factor in automobile consumption*. Annalist, Apr. 22, 1927. Pp. 2. The interrelated factors of quantity production and a widening market for low-priced cars and for tires has resulted in a substantial decline in their prices since 1909; but in the case of gasoline natural scarcity has tended to overcome the advantages of large-scale production.
- KNIBBS, G. H. *The laws of growth of a population. II*. Jour. Am. Stat. Assoc., Mar., 1927. Pp. 11. Examination of the relation between increases in productivity and changes in marriage or birth rates leads the author to stress the importance of studying changes in standards of living in estimating future population or formulating population policies.
- MARSHALL, H. *Differentiation in index numbers of security prices*. Jour. Am. Stat. Assoc., Mar., 1927. Pp. 6. An index of prices of a fixed list of stocks, weighted by amount of stocks outstanding, though useful, is not as good an index of speculative activity as an index based on the 25 best sellers, weighted by stock sales, using Fisher's "ideal" formula.

NATIONAL BUREAU OF ECONOMIC RESEARCH. *Estimated "current income" in the United States*. *Annalist*, Mar. 4, 1927. Pp. 2. Preliminary estimates for the years 1922 to 1926 show, for 1926, an aggregate of almost ninety billion dollars, or \$2,010 per capita, equivalent to \$1,186 in 1913 dollars.

RHODES, E. C. *On sampling*. *Metron*, Vol. V, No. 2, 1925. Pp. 5. A method for estimating the chances that the population, from which two samples showing different proportions in a given class have been drawn, may reasonably be considered to be the same.

SHIOMI, S. *Seasonal fluctuation of our national finance*. *Kyoto Univ. Econ. Rev.*, Dec., 1926. Pp. 34. Expenditures are fairly steady month to month, but revenues show a strong seasonal variation so timed as to create deficits in the first part of the fiscal year.

SUTCLIFFE, J. T. *The Australian national dividend*. *Econ. Record*, Nov., 1926. Pp. 6. Estimates for 1924-25 and, more roughly, for 1925-26, of aggregate income, the proportion received by wage and salary recipients, the proportion saved, and the estimated wealth in 1926.

THORNDIKE, E. L. and WOODYARD, E. *The effect of violent price-fluctuations upon the salaries of clergymen*. *Jour. Am. Stat. Assoc.*, Mar., 1927. Pp. 9. Though the rise in salaries after the price rises in the Civil and Great wars lagged notably, it is probable that these clergymen profited on the whole from these price disturbances.

WATKINS, R. J. *Measuring the fluctuations of employment in the Ohio construction industry*. *Jour. Am. Stat. Assoc.*, Mar., 1927. Pp. 9. A seasonal index based on years 1910 to 1924 for all construction and general contracting, with additional data for 1925 and 1926 based on a sample.

ZINGALI, G. *La popolazione della Sicilia preellenica*. *Metron*, Vol. V, No. 2, 1925. Pp. 29. An estimate of the population of pre-hellenic Sicily, based upon archaeological studies of the cemeteries attributed to that period.

Electric power production as an index of business volume. *Harvard Bus. Rev.*, Apr., 1927. Pp. 6. This index has several characteristics which make it particularly useful as an indicator of conditions in the business group.

TWENTY-FOURTH LIST OF DOCTORAL DISSERTATIONS IN POLITICAL ECONOMY IN PROGRESS IN AMERICAN UNI- VERSITIES AND COLLEGES

Students whose period of continuous non-residence exceeds three years are omitted from the list. The last date given is the probable date of completion.

The first list of this kind was dated January 1, 1904, and was sent to all members, but not regularly bound in the publications. The subsequent lists have appeared in the publications as follows:

- Second list, 1905, in third series, vol. vi, p. 737.
- Third list, 1906, in third series, vol. vii, no. 3, supplement, p. 43.
- Fourth list, 1907, in third series, vol. viii, no. 2, supplement, p. 42.
- Fifth list, 1908, in the *Bulletin* for April, 1908, p. 69.
- Sixth list, 1909, in the *Bulletin* for April, 1909, p. 16.
- Seventh list, 1910, in the *Bulletin* for March, 1910, p. 12.
- Eighth list, 1911, in the *Review* for March, 1911, p. 212.
- Ninth list, 1912, in the *Review* for June, 1912, p. 519.
- Tenth list, 1913, in the *Review* for June, 1913, p. 527.
- Eleventh list, 1914, in the *Review* for June, 1914, p. 524.
- Twelfth list, 1915, in the *Review* for June, 1915, p. 476.
- Thirteenth list, 1916, in the *Review* for June, 1916, p. 499.
- Fourteenth list, 1917, in the *Review* for June, 1917, p. 485.
- Fifteenth list, 1918, in the *Review* for June, 1918, p. 459.
- Sixteenth list, 1919, in the *Review* for June, 1919, p. 483.
- Seventeenth list, 1920, in the *Review* for September, 1920, p. 692.
- Eighteenth list, 1921, in the *Review* for June, 1921, p. 388.
- Nineteenth list, 1922, in the *Review* for June, 1922, p. 380.
- Twentieth list, 1923, in the *Review* for September, 1923, p. 571.
- Twenty-first list, 1924, in the *Review* for September, 1924, p. 601.
- Twenty-second list, 1925, in the *Review* for September, 1925, p. 593.
- Twenty-third list, 1926, in the *Review* for September, 1926, p. 556.

The present list specifies doctoral dissertations completed and accepted by the various universities, and in cases where a publishing company was reported, this has been given. Titles not marked "completed" are assumed to be still in preparation.

Theory and Its History

- IRVING ALLEN, A. B., Michigan, 1914; A. M., Indiana, 1925. Psychology in economic theory. 1927. *Columbia*.
- GERALD BARNES, Ph. D., Michigan, 1926. Natural selection in the social theory of Walter Bagehot. Completed.
- GRACE BAUMGARTNER, B. M., University of Washington, 1923; M. A., 1925. Rent as cost and rent as surplus in merchandising in Seattle. 1926. *Washington*. Completed.
- KARL W. BIGELOW, A. B., Clark, 1920. Forms of business organization as related to economic theory. 1927. *Harvard*.
- GEORGE JOHNSON CADY, B. A., Franklin, 1922; M. A., Northwestern, 1926. Historical development of wages theories. 1929. *Northwestern*.
- ROBERT LINCOLN CAREY, A. B., University of Washington, 1920; A. M., California, 1923. Current theories of prices. 1928. *Columbia*.
- EDWARD HASTINGS CHAMBERLIN, B. S., Iowa, 1920; A. M., Michigan, 1922. Some monopolistic aspects of competitive value. 1927. *Harvard*. Completed.
- NAI-TUAN CHAO, A. M., Columbia, 1924. Richard Jones: the founder of the English historical school in political economy. 1928. *Columbia*.

- MELVIN GARDNER DE CHAZEAU, A. B., Wisconsin, 1924; A. M., Harvard, 1925. Consumers' surplus and consumers' satisfactions. 1928. *Harvard*.
- MARY CHANDLER COIT, A. B., Radcliffe, 1917; A. M., 1925. Velocity as an independent variable in the equation of exchange. 1928. *Radcliffe*.
- GEORGE REGINALD CROSBY, A. B., Harvard, 1922; A. M., Columbia, 1925. A study of John Stuart Mill. 1928. *Columbia*.
- JOSEPH ALBERT CRUMB, B. B. A., Washington, 1923; M. S., California, 1926. Positive theory of profits. 1927. *California*.
- LINCOLN FAIRLEY, A. B., Harvard, 1923; A. M., 1924. Utilitarian ethics and economic theory. 1928. *Harvard*.
- HUGH MACKAY FLETCHER, Ph. D., Illinois, 1926. History of economic theory in the United States, 1820-66. Completed.
- EDWARD EVERETT HALE, B. A., Texas, 1920; A. M., Wisconsin, 1923. History of theories of economic differentials. 1928. *Wisconsin*.
- HAO-JO HO, B. A., Stanford, 1923; M. A., Wisconsin, 1924. The time concept in economics. 1926. *Wisconsin*. Completed.
- PARKER MANFRED HOLMES, B. Ed., Illinois State Normal University, 1922; A. M., Chicago, 1924. Consumer demand. 1928. *Northwestern*.
- KAN LEE, A. B., B. J., Missouri, 1922; A. M., Harvard, 1924. The concept of capital of Karl Marx and British socialists. 1926. *Harvard*. Completed.
- EDWARD ERWIN LEWIS, A. B., Columbia, 1924; A. M., 1925. Doctrine of imputation. 1928. *Columbia*.
- LORNE THOMPSON MORGAN, A. B., British Columbia, 1924; M. A., California, 1925. The entrepreneur. 1927. *California*.
- REDVERS OPIE, B. Com., University of Durham, England, 1919. New currents in British economic thought after 1850. 1928. *Harvard*.
- ROBERT D. PATTON, B. S. in B. A., Ohio State, 1922; M. A., 1926. The nature of the competitive process. 1929 or 1930. Ohio State.
- BLANCHE SCHNITZER, A. B., Wellesley, 1924; A. M., Columbia, 1925. The psychology of consumers' demand. 1928. *Columbia*.
- MAY WOOD SIMONS, Ph. B., Chicago, 1906; M. A., Northwestern, 1910. The history of American economic thought prior to 1837. 1929. *Northwestern*.
- ROYAL STEWART STEINER, A. B., Beloit, 1915; A. M., Harvard, 1921. Economic theory in constitutional law. 1928. *Harvard*.
- OVERTON HUME TAYLOR, A. B., Colorado, 1921. The "natural economic order." 1928. *Harvard*.
- MAO-LAN TUAN, A. B., New York, 1923; A. M., Columbia, 1924. The economic work of Sismondi and his followers. 1927. *Columbia*.
- THEODORE OTTE YNTEMA, A. B., Hope, 1921; A. M., Illinois, 1922. A mathematical restatement of the theory of equilibrium in international trade. 1927. *Chicago*.
- W. E. ZEUCH, B. A., Lennox, 1913; M. A., Clark, 1916. Commanded value theories. 1926. *Wisconsin*. Completed.

Economic History and Geography

- ERICH ANDREW AHRENS, A. B., Rochester, 1921. Seattle in relation to its hinterland. 1928. *Chicago*.
- ELIZABETH MICKLE BACON, A. B., Wheaton, 1924; A. M., Radcliffe, 1926. The growth of household conveniences in the United States since the Civil War period. 1928. *Radcliffe*.

- CORINNE M. BARKER, A. B., Maine, 1920; A. M., Columbia, 1924. Social and economic history of Connecticut from 1914 to the present. 1927. *Columbia*.
- THOMAS C. BLAISDELL, JR., A. B., Penn State, 1916; A. M., Columbia, 1922. The development of the industrial revolution in China. 1928. *Columbia*.
- ROMAINE ELIZABETH BOODY, A. B., Radcliffe, 1920; A. M., 1925. England's foreign trade in the eighteenth century. 1928. *Radcliffe*.
- I. F. BOUGHTER, A. B., Lebanon Valley, 1919; A. M., Pittsburgh, 1922. The Randall protectionist democrats in Congress, 1872-90. 1928. *Pennsylvania*.
- ALEXANDER BRADY, Ph. D., Toronto, 1926. William Huskisson and liberal reform. Completed.
- H. B. BUTCHER, Ph. B., Denison, 1921. The establishment of early trading relations with the mainland of Asia by the British East India Company, 1607-25. 1928. *Pennsylvania*.
- A. N. COOK, S. B., Colgate, 1919; A. M., Pennsylvania, 1921. Nigeria: a study of British imperialism. 1927. *Pennsylvania*. Completed.
- SHIRLEY JAY COON, Ph. D., Chicago, 1926. The economic development of Missoula, Montana. Completed.
- HOBART S. COOPER, B. A., Tennessee, 1924; M. A., 1925. Swiss colonies in the United States: a study of tendencies in the selection and utilization of land. 1928. *Wisconsin*.
- ANDREW WELLINGTON CORDIER, Ph. D., Chicago, 1926. The reconstruction of Southern France after the Albigensian Crusade. Completed.
- IDA SONNTAG CRAVEN, A. B., Wellesley, 1925. The coming of industrialism in France. 1928. *Robert Brookings*.
- SAMUEL RICHARDSON DAVENPORT, A. B., Morningside, 1926. The social and economic history of Ohio since 1860. 1928. *Chicago*.
- FLORENCE EDLER, Ph. B., Chicago, 1920; A. M., 1923. History of the silk trade of Lucca in the Middle Ages. 1928. *Chicago*.
- M. R. EISELEN, A. B., Northwestern, 1924; A. M., 1925. Pennsylvania and the protective tariff to 1860. 1929. *Pennsylvania*.
- JEAN ATHERTON FLEKNER, A. B., Bryn Mawr, 1921. "Industrial revolution" in the South. 1928. *Robert Brookings*.
- FELAMORZ YOUNG FOX, A. B., Utah, 1906; M. L., California, 1912. Land policy of the Mormon church. 1928. *Northwestern*.
- MARGARET RANDOLPH GAY, A. B., Radcliffe, 1922; A. M., 1923. The Statute of Artificers and its administration, 1563-1813. 1929. *Radcliffe*.
- LELAND J. GORDON, B. S., Pennsylvania, 1922; A. M., 1924. The economic relations of Turkey and the United States. 1928. *Pennsylvania*.
- ADA HAESELER, A. B., Wellesley, 1921; A. M., 1922. Tudor anticipations of Stuart financial disputes. 1927. *Pennsylvania*.
- G. D. HARMON, A. B., Duke, 1921; A. M., 1922. Financial aspect of the federal administration of Indian affairs, 1789-1860. 1927. *Pennsylvania*.
- ABRAM L. HARRIS, JR., A. B., Virginia Union; A. M., Pittsburgh. Economic forces in negro history. 1928. *Columbia*.
- MILTON SYDNEY HEATH, A. B., Kansas, 1920; A. M., Harvard, 1924. The history of the Southern Railway: a study in economic development of the South since the Civil War. 1926. *Harvard*.
- FRED BUNYAN JOYNER, A. B., Southern, 1916; A. M., Chicago, 1920. David A. Wells and his work. 1927. *Chicago*.

- OSCAR ARVALE KINCHIEN, A. B., Oklahoma, 1916; A. M., 1920. The economic development of Arkansas. 1927. *Chicago*.
- PAUL KOSOK, B. S., College of the City of New York, 1918. The workers' and soldiers' councils during the German revolution of 1914-19. 1927. *Columbia*.
- THEODORE JOHN KREPS, A. B., Colorado, 1920; A. M., Harvard, 1924. Some problems in the economic history of the chemical industry. 1927. *Harvard*.
- T. M. KU, A. B., Johns Hopkins, 1924; A. M., Columbia, 1925. The administration of the Chinese indemnity fund. 1927. *Clark*.
- ROBERT RUSSELL LaFOLLETTE, A. M., Wisconsin, 1917. Interstate migration and the political, social, and economic history of Indiana since 1850. 1928. *Harvard*.
- JOHN LAURES, Abitur (Germany), 1913; A. B., Woodstock, Maryland, 1925; A. M., 1925. Economic ideas of the early Spanish Jesuits. 1928. *Columbia*.
- MAXWELL ALAN LEENER, A. B., Yale, 1923; A. M., Washington University, 1925. The early history of American railroads. 1928. *Robert Brookings*.
- LEAH LIPSKY, A. B., Hunter, 1922; A. M., Columbia, 1923. Origin and growth of social democratic party in Russia. 1927. *Columbia*.
- HOPE HENRY LUMPKIN, B. A., South Carolina, 1904; B. D., University of the South 1907; M. A., Wisconsin, 1922. Social and economic ideas of the English church fathers. 1927. *Wisconsin*. Completed.
- SERAFIN C. MACARAIG, B. A., University of the Philippines, 1917; Ph. B., Chicago, 1919. Tendencies and problems in the Philippine population. 1928. *Wisconsin*.
- A. H. MACFARLANE, A. B., Pennsylvania, 1922. The economic and political developments in Turkey since 1923. 1928. *Pennsylvania*.
- EDMUND ARTHUR MOORE, A. B., Minnesota, 1924; A. M., 1925. Third party movements and their economic background in Minnesota since 1858. 1928. *Chicago*.
- JEAN ELIZABETH MURRAY, A. B., Saskatchewan, 1922; A. M., 1923; A. M., Toronto, 1924. Development of the fur trade in New Netherlands and New York. 1927. *Chicago*.
- JOHN ULRIC NEF, S. B., Harvard, 1920. Coal in British history before the Industrial Revolution. 1928. *Robert Brookings*.
- GUSTAV PECK, A. B., Columbia, 1921; A. M., 1924. The economics of a rising industrialism: a study in the interaction of English history and economic theory from 1815 to 1848. 1928. *Robert Brookings*.
- J. E. POMFRET, A. B., Pennsylvania, 1920; A. M., 1922. The history of peasant proprietorship in Ireland. 1927. *Pennsylvania*.
- GEROUD TANQUARY ROBINSON, A. M., Columbia, 1922. The destruction of the old land system in Russia, 1917-19. 1927. *Columbia*.
- EDGAR SCHMIEDELER, O. S. B., A. M., St. Vincent, 1917. The Industrial Revolution and the home. 1927. *Catholic University*. Completed.
- KINN WEI SHAW, Ph. D., Columbia, 1926. Democracy and finance in China: a study in the development of fiscal system and debts. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- MANUEL RUSTIA Y. SISON, B. S. in Commerce, University of Philippines, 1923; M. B. A., University of Washington, 1925. A critical study of the Philippine politico-economic regime. 1927. *Washington*.
- PETER THEODORE SWANISH, B. S., Minnesota, 1921; M. B. A., Northwestern, 1923. The financial history of Russia since 1914. 1928. *Chicago*.
- GEORGE ROGERS TAYLOR, Ph. B., Chicago, 1921. A study of economic conditions in the United States, 1789-1815. 1928. *Chicago*.

- EDGAR TRISTRAM THOMPSON, A. B., South Carolina, 1922; A. M., Missouri, 1924. The plantation. 1928. *Chicago*.
- ROSALIND TOUGH, B. A., Wisconsin, 1924; M. A., 1925. The development of urban economy: a study of the economic basis, history, development, structure, and future of cities. 1929. *Northwestern*.
- VASO TRIVANOVITCH, B. S., Maryland, 1923; M. A., Columbia, 1924. Monetary reform and foreign trade in Jugo-Slavia. 1928. *Columbia*.
- F. Y. TSUI, B. S., Nankai, 1924; B. S., M. S., Columbia, 1925. Financial relations between the central government of China and Mongolia. 1928. *Columbia*.
- JOHN GEORGE VAN DEUSEN, A. B., Ohio State, 1913; A. M., 1914. Economic aspects of the secession movement in South Carolina. 1928. *Columbia*.
- ELIZABETH LANE WATERMAN, A. B., Barnard, 1924; A. M., Radcliffe, 1925. Standard of living of the eighteenth century English laborer. 1928. *Radcliffe*.
- WILLIAM W. WHITEHOUSE, A. B., Lebanon, 1916; A. M., Lawrence, 1919; Th. D., Drew Theological Seminary, 1922. Social and economic survey of Calhoun County, Michigan. 1927. *Northwestern*. Completed.
- FRANK E. WILLIAMS, A. B., Wisconsin, 1910; A. M., 1912. Geographical interpretation of the industrial development of the Schuylkill Valley. 1928. *Pennsylvania*.
- EARLE MICAJAH WINSLOW, A. B., Penn., 1920; A. M., Iowa, 1922. Some aspects of economic imperialism. 1928. *Harvard*.
- ELIZABETH C. WRIGHT, A. B., Wellesley, 1920; A. M., Pennsylvania, 1923. Legal and economic conditions in the English forests in the Middle Ages. 1927. *Pennsylvania*. Completed.

Agriculture, Mining, Forestry, and Fisheries

- BEN FINLEY ALVORD, B. S., Illinois, 1923; M. S., 1924. Shifts in agricultural production in the Red River Valley in Minnesota. 1927. *Minnesota*.
- JOHN BENEDICT BEARNSON, B. S., Utah Agricultural, 1914; A. M., Stanford, 1917. The direct marketing of livestock. 1928. *Chicago*.
- ALBERG GAIN BLACK, B. S., Illinois, 1920; M. A., Minnesota, 1925. Wealth and income of the farmers of the United States. 1927. *Minnesota*.
- JOHN FRANKLIN BOOTH, Ph. D., Cornell, 1926. An economic study of farmers' business coöperative organizations in New York. Completed.
- ELMER WILLIAM BRAUN, B. S., Minnesota, 1925; M. A., 1926. The long time price of wheat and its economic significance in relation to its geographic movement of production and its position to other enterprises. 1928. *Stanford*.
- ROLAND FRANKLIN BUCKNAM, B. S., Cornell, 1914. An economic study of farm electrification. 1930. *Cornell*.
- ANDREW CAIRNS, B. A., Alberta, 1923; M. S., Minnesota, 1927. A comparative study of grain marketing in the United States and Canada. 1928. *Minnesota*.
- OMAR ORLANDO CHURCHILL, B. S., Michigan Agricultural College, 1906; M. S., North Dakota Agricultural College, 1923. The economics of flaxseed production in the United States. 1927. *Minnesota*. Completed.
- DONALD R. COWAN, B. A., Queen's, 1917; M. A., Toronto, 1918. An analysis of the factors determining the territorial distribution of the sale of dairy produce. 1928. *Minnesota*.
- HENRY REAVIS COX, A. B., Texas, 1921. The American tobacco industry, 1911-27. 1928. *Columbia*.

- EDWIN F. DUMMEIER, Ph. D., Chicago, 1926. The marketing of Pacific Coast fruits in Chicago. Completed.
- FLOYD F. ELLIOTT, B. S., Kentucky, 1919; M. S., Illinois, 1920. The elasticity of the supply of hogs. 1926. *Wisconsin*. Completed.
- ROBERT H. ENGLE, B. S., Illinois, 1917; M. S., 1925. A census of the agricultural industry in the Chicago region. 1928. *Chicago*.
- JOHN FAUNTLEROY FENNELLY, A. B., Princeton, 1920; A. M., 1925. The influence of the wheat tariff on wheat farming. 1928. *Columbia*.
- CLIFFORD WILLIAM GILBERT, B. S., Cornell, 1916; M. S., 1926. Cost of operating tractors and effects of tractors on farms. 1928. *Cornell*.
- BUEFORD MONROE GILE, B. S., Wisconsin, 1913; M. A., Minnesota, 1925. The agricultural credit situation in Minnesota. 1927. *Minnesota*.
- ERWIN GRAUE, B. S., Cornell, 1923. The balance of agriculture and manufacturing enterprise. 1928. *Cornell*.
- THOMAS WILLIAM GRINDLEY, B. A., Alberta, 1923; B. S., 1925; M. A., Minnesota, 1927. The effects of single-crop agriculture in western Canada. 1927. *Minnesota*.
- NORMAN MULLIGAN GUY, A. B., Mt. Allison, 1912; A. M., 1913; A. M., Harvard, 1924. The English agricultural laborers' movement and the churches. 1928. *Harvard*.
- ISAAC FULTZ HALL, Ph. D., Cornell, 1926. An economic study of farm buildings in New York State. Completed.
- HENRY GLENN HAMILTON, B. S. A. E., Florida, 1921. The cost of handling citrus fruit. 1927. *Cornell*.
- CONRAD HAROLD HAMMAR, B. S., Minnesota, 1924. The valuation of the cut-over land of the Lake States. 1927. *Minnesota*.
- GERTRUDE RUTH HARLEY, A. B., Wisconsin, 1923; A. M., 1925. A study of urban tenure and tenancy. 1928. *Northwestern*.
- JOHN FREDERICK HARRIOTT, Ph. D., Cornell, 1926. Farm tenure in New York. Completed.
- WILLIAM A. HARTMAN, B. S., Wisconsin, 1923. "Grub-stake" stage in colonization and "shot-gun" types of land settlement in northern Wisconsin. 1927. *Wisconsin*.
- JAMES SCHOFFNER HATHCOCK, B. S., North Carolina, 1918; M. S., Cornell, 1923. Practices and costs of cotton gin operations in North Central Texas. 1927. *Cornell*.
- JULIUS HENDEL, B. A., Cornell, 1921. Cash and future price of wheat in the Minneapolis market for hard spring wheat. 1927. *Minnesota*.
- ARNOLD FREDERICK HINRICHS, B. S., Minnesota, 1922. A study of the economic factors producing differences in the organization of German agriculture and the agriculture of the parts of the United States having similar climatic conditions. 1928. *Minnesota*.
- BUDD ALEXANDER HOLT, B. A., Minnesota, 1920; M. A., 1922. Analysis of potato price differentials. 1927. *Minnesota*.
- LEANDER D. HOWELL, B. S., Texas A. and M., 1921; M. S., 1922. The white farmer of the South. 1928. *Wisconsin*.
- EDWIN C. JOHNSON, B. A., Minnesota, 1921; M. A., 1923. An analysis of the agricultural audit situation in Kentucky. 1928. *Minnesota*.
- ARDESHIR KHOORSHID, B. A., University of Bombay, 1918; M. S., Wisconsin, 1922. Subdivision and fragmentation of agricultural holdings in western India. 1928. *Wisconsin*.

- OSCAR KIESSLING, A. B., Wisconsin, 1923; M. A., 1924. The economic factors in controlling oil pool development. 1928. *Robert Brookings*.
- CHARLES EARL LANDON, Ph. D., Illinois, 1926. The world cotton situation. Completed.
- HENRIETTA M. LARSON, Ph. D., Columbia, 1926. The wheat market and the farmer in Minnesota, 1858-1900. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- JOHN E. LATTIMER, B. S., Toronto, 1914. Land tenure in Canada. 1926. *Wisconsin*. Completed.
- CHARLES GROVER MCBRIDE, B. S., Penn State, 1911. An economic study of market milk areas in Eastern Ohio. 1927. *Cornell*.
- WILLIAM GUY MEAL, B. S., Cornell, 1923. Production and marketing study of New York lettuce. 1929. *Cornell*.
- HUTZEL METZGER, B. S., North Dakota College of Agriculture, 1920; M. A., 1923. The economic aspects of local grain elevator organization. 1926. *Minnesota*. Completed.
- ROBERT W. MURCHIE, M. A., Glasgow University, 1924. The unused land of Manitoba: a survey of the physical, economic, and social factors of land settlement. 1927. *Minnesota*.
- KEITH ANDERSON HOPE MURRAY, B. S., Edinburgh, 1925. Some aspects of milk marketing. 1928. *Cornell*.
- JOHANN CHRISTAAN NEETHLING, A. B., Transvaal, 1922. An economic study of dairy farming in Chenango and Madison Counties. 1928. *Cornell*.
- WILLIAM DUBRETTE NICHOLLS, Ph. D., Cornell, 1926. A study of the cost of producing tobacco in Kentucky. Completed.
- F. LESTER PATTON, Ph. D., Columbia, 1926. Diminishing returns in agriculture. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- JAN G. PEROLD, B. A., University of Cape of Good Hope; M. A., Toronto, 1926. The South African mining industry. 1928. *Toronto*.
- GEORGE MARTIN PETERSON, B. S., Minnesota, 1921; M. A., 1923. The problem of the agricultural surplus in the United States. 1927. *Minnesota*.
- GEORGE AUGUSTUS POND, B. S., Minnesota, 1908. A study of dairy farm organization in southeastern Minnesota. 1927. *Cornell*.
- JAMES DRAKE POPE, B. S., Peabody, 1918; M. S. A., Cornell, 1924. The price of cotton. 1927. *Cornell*.
- EMIL RAUCHENSTEIN, B. S., Wisconsin, 1911; M. S., Illinois, 1924. Factors affecting the supply of fluid milk in the Twin City market area. 1926. *Minnesota*. Completed.
- JOSEPH RHOADES, B. S., Minnesota, 1918; M. S., 1920. Factors affecting the price of beef cattle. 1928. *Minnesota*.
- HAROLD B. ROWE, B. S., Iowa State College, 1923. A plan for federating farmers' elevators in the spring wheat area. 1927. *Minnesota*.
- DAVID ROZMAN, A. B., Wisconsin, 1923. The comparative study of land tenure in the United States and foreign countries. 1928. *Northwestern*.
- GEOFFREY SEDDON SHEPARD, B. S. A., Saskatchewan, 1924; S. M., Iowa, 1925. Corn and hog price stabilization in the corn belt. 1928. *Harvard*.
- JONAS STURLANSON, B. S., North Dakota Agricultural College, 1924. Large land holdings. 1928. *Wisconsin*.

- TSUNG-YU SUN, Ph. B., Chicago, 1924; M. S., Columbia, 1925. International comparison of agricultural prices. 1928. *Columbia*.
- FRANK TANNENBAUM, A. B., Columbia, 1921. The Mexican agricultural revolution. 1927. *Robert Brookings*.
- CLIFFORD CURTIS TAYLOR, S. B., Colorado Agricultural College, 1917; S. M., Iowa State College, 1923. Economics of agricultural coöperation. 1928. *Harvard*.
- JOHN WILLS TAYLOR, Ph. B., Wisconsin, 1911; A. M., 1925. History of the leasing of the public lands. 1927. *Chicago*.
- WILLIAM HENRY TEN HAKEN, A. B., Hope, 1917; A. M., Wisconsin, 1924. A study of land ownership and tenancy in Knox County, Illinois. 1928. *Northwestern*.
- JOHN LESLIE TENNANT, B. S., Toronto, 1913; M. S., Cornell, 1921. The economic relationships between roads and agriculture. 1928. *Cornell*.
- ELEAZER TETREAU, B. A., Hamline, 1915; M. A., Wisconsin, 1920. The effect of tenancy on rural institutions. 1928. *Wisconsin*.
- RAYMOND D. THOMAS, B. S., State Teachers' College, Springfield, Mo., 1920; Ph. M., Wisconsin, 1922. Farm land valuation. 1926. *Wisconsin*. Completed.
- VOLODIMER P. TIMOSHENKO, Graduate, Polytechnic Institute, Petrograd, 1911. Wheat prices and world wheat market. 1927. *Cornell*.
- CHARLES KETCHUM TUCKER, B. S., Cornell, 1922; M. S., 1925. Country milk plants. 1927. *Cornell*.
- LAWRENCE MOORE VAUGHAN, B. S., Cornell, 1923. An economic study of the utilization of land. 1928. *Cornell*.
- EDMUND ELLSWORTH VIAL, B. S., Illinois, 1922; M. S., Cornell, 1924. Prices of fertilizer materials and factors affecting the fertilizer tonnage. 1927. *Cornell*.
- DILWORTH WALKER, Ph. D., Cornell, 1926. An economic study of production and marketing of New York market peas. Completed.
- FRANK JOSIAH WALRATH, B. S., Cornell, 1923. A history of the agriculture of Tompkins County, New York. 1927. *Cornell*.
- DAVID WEEKS, B. S., Nebraska, 1915; M. S., Iowa, 1919; C. E., Nebraska, 1921. An analysis of factors determining land prices in the Eleventh Federal Farm Loan District. 1928. *California*.
- VIRGIL R. WERTZ, B. S., Wisconsin, 1919; M. S., 1920. Some physical and economic aspects of potato production in South Dakota. 1927. *Wisconsin*.
- ELMER JOSEPH WORKING, S. B., Arizona, 1921; S. M., Iowa State College, 1922. The orderly marketing of grain. 1928. *Harvard*.
- ALFRED J. WRIGHT, A. B., Michigan, 1922; A. M., Pennsylvania, 1925. Importance of water supply of industrial Tennessee. 1929. *Pennsylvania*.
- HAROLD NEWELL YOUNG, B. S., Cornell, 1917. An economic study of the cost of production and marketing of field beans. 1931. *Cornell*.
- HARRY P. YOUNG, B. S., Penn State, 1913. An economic study of dairy farming on 186 farms in the townships of Randolph and Royalton, Vermont. 1927. *Cornell*.

Manufacturing Industries

- LUELLA DENSMORE ARNOLD, A. B., Olivet, 1917; A. M., Chicago, 1926. A history of the printing and publishing industry in the United States. 1928. *Chicago*.
- URSULA CHASE BATCHELDER, A. B., Bryn Mawr, 1923. The history of the baking industry in Chicago. 1927. *Chicago*.

- RUSSELL BAUDER, B. A., KNOX, 1924. The foundry industry in its business, technological, and labor aspects. 1928. *Wisconsin*.
- MARY GERTRUDE BROWN, A. B., Mount Holyoke, 1924; A. M., Radcliffe, 1926. The history of the American silk industry. 1929. *Radcliffe*.
- WILLIAM E. CHALMERS, B. A., BROWN, 1925. The automobile industry in its technological, business, and labor aspects. 1929. *Wisconsin*.
- MYRTLE CLINE, A. B., Valparaiso, 1914; A. M., Columbia, 1922. History of manufactures in New York State. 1927. *Columbia*.
- CLYDE EDWARD DANKERT, B. A., McMaster, 1926. The history of the furniture manufacturing industry in the United States. 1927. *Chicago*.
- R. C. DANIEL, B. A., Lynchburg College; M. A., George Washington. The migration of industry. *American University*.
- CARROLL R. DAUGHERTY, Ph. D., Pennsylvania, 1927. The development of horsepower equipment in the United States. Completed.
- JEAN DAVIS, B. A., Bryn Mawr, 1914; M. A., Wisconsin, 1920. A type study of a southern cotton mill. 1928. *Wisconsin*.
- JOSHUA LEVERING EVANS, B. A., Yale, 1923. History of the fur felt hat industry in the United States. 1927. *Yale*.
- GERALD MCFADDEN FRANCIS, A. B., KNOX, 1921; A. M., Illinois, 1925. Some economic problems of electric superpower. 1927. *Illinois*.
- MEREDITH B. GIVENS, B. A., Drake, 1920. The iron and steel industry in its technological, business, and labor aspects. 1928. *Wisconsin*.
- HAROLD GROVES, B. A., Wisconsin, 1919; M. A., 1922. The heavy machinery industry in its technological, business, and labor aspects. 1928. *Wisconsin*.
- WILLIAM G. HABER, B. A., Wisconsin, 1923; M. A., 1925. The building industry in its technological and bargaining aspect. 1927. *Wisconsin*.
- ASHER ISAACS, A. B., Cincinnati, 1923; A. M., 1924. The pottery industry. 1928. *Harvard*.
- ANN JAMRA, B. A., Wisconsin, 1926. Comparative trends in productivity in English and American cotton mills. 1929. *Wisconsin*.
- ROBERT JOSEPH LARGENT, A. B., West Virginia, 1903; A. M., Chicago, 1923. History of the lumber industry in the American colonies. 1927. *Chicago*.
- SCHICHERO MATSUI, LL. B., Doshicha, Japan, 1919; M. A., California, 1922. The knit goods industry in Wisconsin. 1927. *Wisconsin*.
- GUY E. MORRISON, B. A., Illinois, 1922; M. A., 1926. Paper manufacturing industry in its technological, business, and labor aspects. 1929. *Wisconsin*.
- ROBERT JAMES MYERS, A. B., Washburn, 1926. The men's clothing industry. 1928. *Chicago*.
- REUBEN H. SPARKMAN, B. A., Eastern Texas State Teachers' College, 1920; George Peabody College for Teachers, 1923. A comparative study of cotton mills of the South. 1928. *Wisconsin*.
- GEORGE H. TRAFTON, B. A., Dartmouth, 1924. The printing industry in its technological and bargaining aspects. 1928. *Wisconsin*.

Transportation and Communication

- JOHN F. BRIDGEMAN, B. S., in Econ., Pennsylvania, 1920; A. M., 1922. Evaluation of railroad labor legislation. 1928. *Pennsylvania*.
- GORDON M. CASEY, A. B., College of the City of New York, 1924; A. M., Columbia, 1925. Early history of the New York Central, 1830-80. 1928. *Columbia*.

- PAO HSUN CHU, A. B., Cornell, 1924; A. M., Columbia, 1925. The post office. 1928. *Columbia*.
- JOSEPH EARL CUMMINGS, Ph. D., Chicago, 1926. Economic aspects of railway consolidation in the West. Completed.
- RALPH L. DEWEY, A. B., Ohio State, 1923; A. M., 1924. The long-and-short-haul principle of rate regulation. 1928. *Michigan*.
- HERBERT EDWARD DOUGALL, B. S., Toronto, 1925; M. B. S., Northwestern, 1926. Canadian railway finance. 1929. *Northwestern*.
- C. C. EDMUNDS, Ph. D., Wisconsin, 1927. The function and the regulation of the common carrier motor vehicle. Completed.
- DONALD MILTON ERB, S. B., Illinois, 1918; S. M., 1924. Railroad abandonments and additions in the United States since 1920. 1928. *Harvard*.
- MARGARET HALE HAHN, B. S., Northwestern, 1923. Financial history of the Illinois Central Railroad. 1928. *Northwestern*.
- A. K. HENRY, B. S. in Econ., Pennsylvania, 1921; A. M., 1924. Intercoastal carriage by water and its effect upon the transcontinental railways. 1928. *Pennsylvania*.
- J. M. HERRING, A. B., Lafayette, 1922; A. M., 1924. Study of recapture clause in the Transportation Act of 1920. 1928. *Pennsylvania*.
- THOR HULTGREN, A. B., Columbia, 1923; A. M., 1925. Studies in railroad organization and income. 1928. *Robert Brookings*.
- S. H. KING, A. B., University of Communications, 1922; A. M., Pennsylvania, 1924. Distribution of freight car supply. 1927. *Pennsylvania*. Completed.
- FREDERICK CHAPIN LANE, A. B., Cornell, 1921; M. A.; Tufts, 1922. The Mediterranean merchantman as a carrier, 1400-1700. 1928. *Harvard*.
- MICHAEL JOSEPH LARKIN, S. M., A. M., Catholic University, 1924. Moral aspects of railroad rates. 1927. *Catholic University*. Completed.
- BRECK PARKMAN McALLISTER, A. B., California, 1923; Premier degré, Univ. of Dijon, France, 1925; LL.B., Harvard, 1926. Business affected with a public interest: an aspect of government regulation of industry. 1928. *Robert Brookings*.
- JOHN LORNE MACDOUGALL, B. A., Toronto, 1921; M. A., 1923. A history of the Canadian Northern Railway. 1928. *Harvard*.
- ROSS ALLEN McREYNOLDS, A. B., Missouri, 1920; A. M., 1921. The history of the post office. 1927. *Chicago*.
- LEHMANN P. NICKELL, B. S., Virginia, 1922; M. S., 1924. Hampton Roads as a commercial port. 1928. *Virginia*.
- HOBART STEPHEN PERRY, Ph. D., Pennsylvania, 1926. Federal intrastate railroad rate regulation. Completed.
- GEORGE S. PETERSON, A. B., Albion, 1920; M. A., Michigan, 1921. Principles governing highway improvement. 1927. *Michigan*.
- HENRY JOSEPH REHN, S. B., Oregon Agricultural College, 1924; M. B. A., Oregon, 1925. The financial history of the Chicago Milwaukee and St. Paul Railroad. 1927. *Chicago*.
- GEORGE G. REYNOLDS, A. B., Wesleyan, 1905; LL. B., Harvard, 1908. Conflicts between state and federal regulation of railways. 1927. *Columbia*.
- CHRISTOPHER ROBERTS, A. B., Haverford, 1921; A. M., Harvard, 1922. A history of the Middlesex Canal. 1927. *Harvard*.

- EMERSON P. SCHMIDT, B. A., Northcentral College, Naperville, 1923; M. A., Toronto. 1924. Urban electrical transportation industry in its technological, business, and labor aspects. 1928. *Wisconsin*.
- LEWIS EVERETT SEVERSON, A. B., Kansas, 1919; A. M., Stanford, 1923. The financial history of the Illinois Central Railroad since 1870. 1928. *Chicago*.
- JOHN CLIFFORD SHOYER, Ph. D., Pennsylvania, 1926. Individual production rating: a study of measurement of quantity and quality of individual production output in a textile operation. Completed.
- FESTUS PAUL SUMMERS, A. B., West Virginia, 1923. The Baltimore and Ohio Railroad. 1928. *Chicago*.
- FRANK B. WARD, Ph. D., Pennsylvania, 1926. The United States Railway Labor Board and railway labor disputes. Completed.
- JOHN BROWNSON WATKINS, Ph. B., Chicago, 1921; A. M., 1924. The organization and management of the Chicago and Eastern Illinois Railroad. 1928. *Chicago*.
- VEN WAY WOO, Ph. D., Pennsylvania, 1926. Efficiency in railroad management: a study of the requirements of Section XV-A of the Transportation Act of 1920. Completed.
- S. T. WU, A. B., Michigan, 1922; A. M., 1923. Fair return on railroad property. 1928. *Pennsylvania*.

Trade, Commerce, and Commercial Crises

- MARTIN A. BRUMBAUGH, Ph. D., Pennsylvania, 1926. A direct method of determining the cyclical fluctuations of economic data. Completed.
- GARNET H. CUTLER, B. S., Ontario Agricultural College, 1909. Canada's foreign trade in agricultural products. 1928. *Wisconsin*.
- FRANK GREENE DICKINSON, A. B., Illinois, 1921; A. M., Pennsylvania State College, 1923. Public construction and cyclical unemployment, 1919-25. 1927. *Illinois*.
- GEORGE ALEXANDER ELLIOTT, A. B., Manitoba, 1920; A. M., 1925. Terms of trade in international commerce. 1927. *Chicago*.
- RICHARD VINCENT GILBERT, S. B., Harvard, 1923; A. M., 1925. Selected problems in theory of international trade. 1928. *Harvard*.
- FRANK CYRIL JAMES, Ph. D., Pennsylvania, 1926. Cyclical fluctuation in the shipping and ship-building industries. Completed.
- FRANK ALBERT KNOX, B. A., Queen's, 1923. The Canadian trade balance, 1914-26. 1927. *Chicago*.
- SIMON SMITH KUZNETS, Ph. D., Columbia, 1925. Cyclical fluctuations. Completed. (Published by Adelphi Press, New York.)
- GARDINER COIT MEANS, A. B., Harvard, 1918. Fluctuations in New England's balance of trade. 1928. *Harvard*.
- CYRIL O'DONNELL, B. Com., Alberta, 1924; A. M., 1925. The history of the Chicago lumber market. 1928. *Chicago*.
- CHARLES A. R. WARDWELL, B. S. in Econ., Pennsylvania, 1920; A. M., 1922. An investigation of economic data for major cycles. 1927. *Pennsylvania*. Completed.
- CHARLES RAYMOND WHITTLESEY, A. B., Philomath, 1921; A. M., American University of Beirut, 1924. The Stevenson plan. 1928. *Princeton*.
- CLARENCE A. WILEY, B. A., Texas, 1920; M. A., 1921. Agriculture and the business cycle since 1920. 1926. *Wisconsin*. Completed.

Accounting, Business Methods, Investments and the Exchanges

- CHARLES E. ARTMAN, Ph. D., Columbia, 1926. Food costs and city consumers. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- FORREST B. ASHBY, Ph. D., Pennsylvania, 1926. The economic effects of Blue Sky Laws. Completed.
- C. CANBY BALDERSTON, B. S. in Econ., Pennsylvania, 1921; A. M., 1923. The use of profit sharing as an incentive for the managerial group. 1928. *Pennsylvania*.
- CHARLES THOMAS BATTIN, A. B., Ottawa, 1913. A history of the French policy with respect to foreign investments. 1928. *Chicago*.
- MAURICE CHESTER BOND, B. S. A., Vermont, 1920; M. S., 1926. A study of the marketing of milk through ice cream. 1928. *Cornell*.
- THOMAS ALLIBONE BUDD, B. S. in Econ., Pennsylvania, 1912; A. M., 1924. Some aspects of the valuation of the good will of industrials. 1928. *Pennsylvania*.
- ALFRED KAIMING CHIU, A. B., Boone University, China, 1921. American investments in China. 1928. *Harvard*.
- PAUL PARKER COOPER, A. B., Kentucky, 1921; A. M., 1924. Analysis and interpretation of expense accounts. 1929. *Chicago*.
- ANNA MAE CAMPBELL DAVIS, B. A., Illinois, 1920; M. A., Wisconsin, 1923. Evolution of trade practices and judicial decisions. 1927. *Wisconsin*.
- JOSEPH FRIEND DAY, A. B., Toronto, 1923; A. M., Chicago, 1926. The financial history of the Ontario Hydro-Electric Commission. 1928. *Chicago*.
- WILLIAM EUGENE DICKERSON, Ph. D., Chicago, 1926. Organization and control of the Illinois Bell Telephone Company. Completed.
- JOHN RUSSEL DOUBMAN, Ph. D., Pennsylvania, 1926. An analysis of display advertising in Philadelphia newspapers to determine its expressed truth or falsity. Completed.
- JOHN ORVAL ELLSWORTH, Ph. D., Cornell, 1926. The marketing of sugar. Completed.
- VON THEURER ELLSWORTH, B. S. and M. S., Utah Agricultural College, 1924. The distribution of control in California coöperative dairy marketing associations. 1928. *California*.
- CHARLES GRANDISON EUBANK, B. S., Minnesota, 1923; M. S., 1924. Incentive devices in use in Chicago business organizations. 1928. *Chicago*.
- G. H. EVANS, JR., Ph. D., Johns Hopkins, 1925. Apartment rentals in Baltimore. Completed.
- PHILIP GORDON FOX, A. B., Wisconsin, 1921; A. M., 1924. Price maintenance policies and price-cutting policies. 1927. *Columbia*.
- JOHN H. FREDERICK, B. S. in Econ., Pennsylvania, 1919; A. M., 1925. The regulation of railroad security issues by the Interstate Commerce Commission. 1927. *Pennsylvania*. Completed.
- JOSEPH MOSES GILLMAN, Ph. D., Columbia, 1926. Rent levels in Pittsburgh, Pennsylvania, and their causes. Completed. (Published by University Print Shop, Pittsburgh, Pennsylvania.)
- MAURICE CLARK GORDON, A. B., Denver, 1917; A. M., 1918. Judicial theory of depreciation in public utility companies. 1927. *Northwestern*. Completed.

- WILLARD J. GRAHAM, A. B., Tarkio, 1921; A. M., Chicago, 1924. The effect of mechanical equipment on accounting systems and on accounting personnel. 1928. *Chicago*.
- HORACE MONTGOMERY GRAY, Ph. D., Illinois, 1926. Working capital requirements for public service corporations. Completed.
- OTTO GRESSENS, Ph. D., Illinois, 1927. The budget and budgetary control in public utilities, with particular reference to forecasting the key figures of the operating budget. Completed.
- W. CARLTON HARRIS, LL. B., Pennsylvania, 1913. A study of unit costs in the development of raw suburban land. 1927. *Pennsylvania*.
- JOSEPH ROBERT HILGERT, Ph. D., Columbia, 1926. Cost accounting for sales. Completed. (Published by Ronald Press.)
- ALBERT G. HINMAN, B. A., Missouri, 1927; M. A., Wisconsin, 1923. Economic aspects of real estate marketing. 1928. *Northwestern*.
- HOULDER HUDGINS, A. B., Cornell, 1923. Economical interpretation of cost accounting. 1928. *Cornell*.
- EVERETT CHERINGTON HUGHES, A. B., Ohio Wesleyan, 1918. A study of an institution: the Chicago Real Estate Board. 1927. *Chicago*.
- WILLIAM H. HUSBAND, A. B., Michigan, 1922; M. A., Ohio State, 1924. The financing of industrial combinations. 1927. *Ohio State*.
- FRANK T. HYPPTS, B. S. in Econ., Pennsylvania, 1925. Certificates of public necessity and convenience. 1928. *Pennsylvania*.
- JAMES ROY JACKSON, Ph. B., Chicago, 1923; A. M., 1924. A comparison of the investment value of common and preferred stocks. 1927. *Chicago*.
- GEORGE JOHNSON, B. S., Ohio, 1919; M. S., Wisconsin, 1922. Producers' contracts—their use, nature, and value in the coöperative marketing movement. 1926. *Wisconsin*. Completed.
- OLIVER RAY JOHNSON, B. S. A., Missouri, 1910. The incidents of cost as determining the equitableness of rent agreements. 1929. *Cornell*.
- ROCKWELL CRESAP JOURNEY, A. B., Missouri, 1912; A. M., 1913. The cold storage industry in Chicago. 1928. *Chicago*.
- DONALD D. KENNEDY, B. S., Pittsburgh, 1920; A. M., 1922. Overhead costs and the shift to machinery. 1927. *Pennsylvania*.
- LAWRENCE EVERETT KLINE, B. S., Illinois, 1922. The organization and functions of the modern chamber of commerce. 1928. *Illinois*.
- RIKFORD KNIGHT, B. S., Connecticut Agricultural College, 1917; A. M., Columbia, 1926. Contractual expenses and submarginality. 1928. *Columbia*.
- WALTER HERMAN CARL LAVES, Ph. B., Chicago, 1923. A history of the German policy with respect to foreign investments. 1927. *Chicago*.
- WARREN W. LEIGH, A. B., Utah, 1920; M. B. A., Northwestern, 1924. Wholesaling. 1928. *Northwestern*.
- BEN W. LEWIS, Ph. D., Michigan, 1926. Going value and the valuation problem. Completed.
- RALPH CLARK LIMBER, A. B., Allegheny College, 1921; A. M., Wisconsin, 1923. The costs of marketing. 1928. *Northwestern*.
- DAVID PHILIP LOCKLIN, Ph. D., Illinois, 1926. Regulation of security issues by the Interstate Commerce Commission (June 28, 1920—Dec. 31, 1925). Completed. (Published in University of Illinois Studies in the Social Sciences, Vol. XIII, No. 4.)

- WILLIAM N. LOUCKS, A. B., Heidelberg, 1922; A. M., Ohio State, 1923. The financing of second mortgages by Philadelphia building and loan associations. 1928. *Pennsylvania*.
- ROBERT ALONZO LOVE, A. B., Southwestern, 1922; A. M., Columbia, 1923. Tax-exempt bonds. 1928. *Columbia*.
- LAWRENCE McDERMOTT, A. B., Cornell, 1910; A. M., 1914. Marketing of rubber goods. 1928. *Chicago*.
- ROBERT D. MCGINNIS, A. B., Ohio State, 1916; A. M., 1924. A history of market standards, 1927. 1928. *Ohio State*.
- ARTHUR J. MERTZKE, B. A., Wisconsin, 1916. Changes in Wisconsin urban land values with special reference to the relationship between changes in urban land values and changes in population. 1926. *Wisconsin*. Completed.
- OSCAR S. NELSON, B. S., Pennsylvania, 1923; A. M., 1926. The history of accounting theory. 1929. *Pennsylvania*.
- P. M. O'LEARY, A. B., Kansas, 1922; M. A., Harvard, 1924. Recent developments of capital structures of public utility holdings companies. 1928. *Cornell*.
- EDMUND ADRIAN PERREGAUX, Ph. D., Cornell, 1926. An economic study of retail feed stores in New York State. Completed.
- WHITON POWELL, A. B., Cornell, 1924; M. S., 1925. Efficiency of operation of retail feed stores. 1928. *Cornell*.
- PAUL A. RAUSHENBUSH, B. A., Amherst. Mitten men and management in Philadelphia. 1927. *Wisconsin*.
- WILLIAM JOHN REILLY, B. S., Carnegie Institute of Technology, 1921; M. S., 1923. The place of the research department of the modern advertising agency in market research. 1927. *Chicago*.
- JOHN H. SHERMAN, B. A., Cornell, 1911; M. A., Wisconsin, 1922. Market valuation: a treatise on marketing with special attention to influences not usually classed in economics. 1927. *Wisconsin*.
- ERNEST HUGH SHIDELEB, A. B., Ottawa, 1915. The chain store. 1927. *Chicago*.
- DANIEL M. SHONTING, B. A., Ohio State, 1921; M. A., 1923. Financial statements with special reference to the problem valuation. 1929. *Michigan*.
- HENRY EZMOND SMITH, Ph. D., Chicago, 1926. The organization and administrative procedure of the Peoples Gas Light and Coke Company. Completed.
- MAURICE GREER SMITH, A. B., Nebraska, 1922; A. M., 1923. Brazilian coffee valorizations. 1928. *Robert Brookings*.
- JOHN M. STRATTON, A. B., Colorado, 1924; LL. B., 1917; M. B. A., New York, 1925. Annual reports of business corporations. 1928. *Columbia*.
- WILLIAM H. STOFFER, B. S., Virginia, 1921; M. S., 1923. The Federal Trade Commission and unfair competitive practices. 1926. *Virginia*. Completed.
- HERBERT F. TAGGART, A. B., Michigan, 1920; M. A., 1922. Real estate accounts. 1928. *Michigan*.
- ERMINIO TALLA, B. S., Pennsylvania, 1924; M. B. A., 1925. History of the personnel movement in the United States. 1928. *Columbia*.
- PAUL CANADY TAYLOR, Ph. D., Illinois, 1926. The administration of income in public utilities. Completed. (Published in part in *Accounting Review*.)
- F. M. THRUN, B. S., Michigan, 1922; M. A., 1923. An index of recent changes in rural real estate values. 1928. *Michigan*.

- ALFRED JAMES WEAVER, A. B., Texas, 1920; A. M., 1924. The organization and evaluation of market news agencies in the grain trade at Chicago. 1927. *Chicago*.
- PAUL WEBBINK, A. B., Michigan, 1925. Rise of the business of real estate. 1928. *Robert Brookings*.
- HARRY RICHARD WELLMAN, B. S., Oregon Agricultural College, 1921; M. S., California, 1924. An analysis of the methods of pooling employed by the coöperative fruit marketing associations in California. 1926. *California*. Completed.
- JAMES CLIFFORD WHITE, A. B., Virginia, 1923; M. S., 1924. The Public Service Company of Northern Illinois: a study in organization. 1927. *Chicago*.
- JU-MEI YANG, Ph. D., Michigan, 1926. Good will and other intangibles from the standpoint of accounting. Completed.
- WILLIAM HARVEY YOUNG, B. B. A., Texas, 1921; M. B. A., 1922; B. A., 1923. The marketing of coal. 1928. *Robert Brookings*.

Capital and Capitalistic Organization

- MILDRED FAIRCHILD, A. B., Oberlin, 1916; A. M., 1925. The integration movement in certain industries. 1928. *Bryn Mawr*.
- WALTER A. MORTON, B. A., Michigan, 1923; M. A., 1924. Capital formation. 1927. *Wisconsin*. Completed.
- DUDLEY FRANK PEGRUM, A. B., Alberta, 1922; M. A., 1924. Public utility rate theories—illustrated especially by decisions of the California Railroad Commissions. 1927. *California*.
- HAROLD ARCHER VAN DORN, Ph. D., Columbia, 1926. Government owned corporations. Completed. (Published by Knopf, New York.)
- MARCUS WHITMAN, B. A., Wisconsin, 1924; M. A., 1925. Public utility holding companies. 1927. *Wisconsin*.

Labor and Labor Organizations

- ALBERT ABRAHAMSON, A. B., Bowdoin, 1926. The five-day week. 1928. *Columbia*.
- ARTHUR J. ALTMAYER, B. A., Wisconsin, 1914; M. A., 1920. The Wisconsin Industrial Commission. 1928. *Wisconsin*.
- EARL RUCKER BECKNER, A. B., Butler, 1923; A. M., Chicago, 1924. The development of the Illinois Labor Code. 1927. *Chicago*.
- WILLIAM WHIPPLE BENNETT, A. B., Doane, 1919; A. M., Princeton, 1921. Collective bargaining in railway train service. 1927. *Princeton*.
- GEORGE E. BIGGE, A. B., Michigan, 1922; M. A., 1923. Trade unionism and technical change. 1928. *Michigan*.
- JAMES F. BOGARDUS, Ph. D., Pennsylvania, 1927. Industrial arbitration in the book and job printing industry of New York City. Completed.
- GLADYS BOONE, A. B., Birmingham, 1916; A. M., 1917. History of the Women's Trade Union League. 1928. *Columbia*.
- ELIZABETH BRANDEIS, B. S., Radcliffe, 1918; M. A., Wisconsin, 1924. A comparative analysis of rights and duties of labor under several types of industrial government. 1927. *Wisconsin*.
- ALFRED W. BRIGGS, B. S., Illinois, 1923; M. A., Wisconsin, 1924. Labor in the window glass industry. 1928. *Wisconsin*.

- EMILY CLARK BROWN, A. B., Carleton, 1917; A. M., Chicago, 123. Master printers' organizations with special reference to collective bargaining in the book and job printing trades of Chicago. 1927. *Chicago*.
- JAMES DOUGLAS BROWN, A. B., Princeton, 1920; A. M., 1921. The railway maintenance of way men. 1927. *Princeton*.
- ROBERT A. CAMPBELL, B. A., Wisconsin, 1917. Theories of the wages of the Australian Commonwealth Commission of Conciliation and Arbitration. 1928. *Wisconsin*.
- EWAN CLAGUE, B. A., Washington, 1917; M. A., 1921. Changes in efficiency of labor in specific industries in the past thirty years. 1928. *Wisconsin*.
- J. DUNSMORE CLARKSON, Ph. D., Columbia, 1926. Labor and nationalism in Ireland. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- WILLIAM CHARLES CLEVELAND, A. B., Beloit, 1923. The theory of collective bargaining. 1928. *Chicago*.
- WHITNEY COOMBS, Ph. D., Columbia, 1926. The wages of unskilled labor in manufacturing industries in the United States, 1890-1924. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- FREDERICK EMORY CROXTON, Ph. D., Columbia, 1926. Unemployment in Columbus, Ohio, 1921-25. Completed. (Published, Government Printing Office, Washington.)
- HORACE BANCROFT DAVIS, A. B., Harvard, 1920. Building trades unions in New York City, 1900-25. 1928. *Columbia*.
- HARRISON BERNARD FAGAN, A. B., Syracuse, 1916; A. M., 1917; Docteur de l'Université, Lyon, 1922. Printing trade unions in Chicago with special reference to collective bargaining in the newspaper trade. 1927. *Chicago*.
- ROSE D. FITZGERALD, B. A., Smith, 1924. History of geographical distribution of foreign labor in Massachusetts. 1928. *Yale*.
- HSIEN D. FONG, B. S., New York, 1924. Types of industrial organization in England, 1840. 1928. *Yale*.
- H. LA RUE FRAIN, B. S., Pennsylvania, 1923; A. M., 1925. Wage differentials in certain occupations of the Philadelphia metal trades. 1928. *Pennsylvania*.
- MARIANO D. GANO, LL. B., Northwestern, 1916; A. M., St. Thomas, 1923. Labor disputes and their settlement: court decisions. 1928. *Columbia*.
- ORVILLE THRASHER GOODEN, Ph. D., Columbia, 1926. The Missouri and North Arkansas railroad strike. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- RICHARD A. GRAVES, B. A., Minnesota, 1909; M. A., 1912. The departments of the American Federation of Labor: a study in the evolution of unionism. 1927. *Minnesota*.
- LAWRENCE R. GUILD, B. A., Yale, 1922; M. A., 1924. Labor conditions in Ohio villages. 1927. *Yale*.
- WILLIAM THOMAS HAM, Ph. D., Harvard, 1926. Employment relations in the construction industry of Boston. Completed.
- SHUICHI HARADA, A. B., Kansei Gakim College, Kobe, 1921; A. M., Indiana, 1923. The economic background of the labor problem in Japan. 1928. *Columbia*.
- C. O. HEATH, B. S., Cornell, 1917; M. S., 1917; M. H., Springfield Y. M. C. A. College, 1924. Employee representation. 1927. *Clark*.
- A. T. HELBING, Ph. B., Denison, 1923. The departments of the American Federation of Labor. 1928. *Johns Hopkins*.

- CHARLES H. HOWARD, B. S., Gettysburg, 1923. Promotion and tenure in the Brotherhood of Railway Trainmen. 1928. *Johns Hopkins*.
- O. T. JOHNSON, B. S., University of Vermont; M. A., George Washington University. Labor problems in the granite industry. *American University*.
- VICTOR S. KARABASZ, B. S. in Econ., Pennsylvania, 1921; A. M., 1923. Study of mechanical power transmission accidents, State of Pennsylvania, 1920-25. 1927. *Pennsylvania*. Completed.
- JOSEPH M. KLAMON, LL. B., Washington, 1922; M. A., Yale, 1924; J. D., 1925. The legal status of unincorporated unions. 1927. *Yale*.
- TING Tsz KO, Ph. D., Columbia, 1926. Governmental methods of adjusting labor disputes in North America and Australasia. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- MORRIS LATTMAN, A. B., George Washington University; A. M., Columbia. Labor as a force in shaping the course of state and federal legislation, 1827-37. 1928. *Columbia*.
- CHARLES LEESE, A. B., Gettysburg, 1924; A. M., Pennsylvania, 1926. Collective bargaining in the photo-engravers' union of Philadelphia. 1928. *Pennsylvania*.
- DUANE McCracken, B. A., Penn College (Iowa), 1918; M. A.; Wisconsin, 1920. An analysis of court decisions in labor cases. 1927. *Minnesota*.
- ANITA MARBURG, A. B., Vassar, 1921. The evolution of a labor problem in the anthracite industry. 1928. *Robert Brookings*.
- G. S. MITCHELL, Ph. D., Johns Hopkins, 1926. The economic status of white labor in the South. Completed.
- EDWARD W. MOREHOUSE, B. A., Amherst, 1918; M. A., Wisconsin, 1920. The development of working rules in Rochester's men's clothing market, 1919-22. 1927. *Wisconsin*. Completed.
- HOWARD BARTON MYERS, A. B., Washburn, 1923. Chicago strikes with special reference to the policing of industry. 1927. *Chicago*.
- ALLON PEEBLES, A. B., British Columbia, 1920. History of the American Federation of Labor. 1928. *Columbia*.
- JACOB PERLMAN, B. A., Wisconsin, 1919; M. A., 1922. History of the Brotherhood of Locomotive Engineers in America. 1926. *Wisconsin*. Completed. (Parts published in the *Locomotive Engineers' Journal*.)
- K. E. POWLISON, A. B., Columbia, 1922. Hours of labor and trade unions. 1928. *Johns Hopkins*.
- LOUIS REED, A. B., Amherst, 1914; A. M., Columbia, 1925. The Passaic strike. 1928. *Columbia*.
- DAVID M. SCHNEIDER, E. E., University of Kieff, 1921. The Workers' Party and American trade unions. 1927. *Johns Hopkins*.
- ALVAH EUGENE STALEY, A. B., Hastings, 1925. A history of the Illinois State Federation of Labor. 1928. *Chicago*.
- WILLIAM HENRY STEAD, Ph. D., Minnesota, 1926. A survey of promotion and training practices in representative industries in the Twin Cities and Milwaukee, and in certain selected industries in the United States. Completed.
- BRYCE M. STEWART, Ph. D., Columbia, 1926. Canadian labor laws and the treaty. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- LEO C. STUDNESS, A. B., Minnesota, 1918; A. M., Columbia, 1921. The farm labor problem in North Dakota. 1928. *Columbia*.

- ALBION GUILFORD TAYLOR, A. B., Des Moines, 1915; A. M., Nebraska, 1920. The labor policies of the National Association of Manufacturers. 1927. *Illinois*.
- PEDRO LOPEZ TUPAS, A. B., University of Philippines, 1918; A. M., New York, 1925. A study of labor conditions in the Philippines. 1928. *Columbia*.
- CHRISTIAN VAN RIFE, A. B., Ohio, 1919. The history of labor legislation in Ohio. 1927. *Chicago*.
- ANNA GRACE VANEK, Teacher's diploma, Plzen, 1914. Labor in Czecho-Slovakia. 1928. *Columbia*.
- MIRIAM E. WEST, B. A., Milton, 1908; M. A., Columbia, 1912. Statistical analysis of wages of skilled, semi-skilled and common labor. 1928. *Wisconsin*.
- OTTO VON S. WHITELOCK, A. B., Columbia, 1924; A. M., 1926. The Supreme Court and organized labor, 1894-1924. 1927. *Columbia*.
- STEPHEN S. WILSON, B. A., Queen's, Oxford, 1925. Comparison of trade unionism in Great Britain and in the United States. 1928. *Robert Brookings*.
- EDWIN E. WITTE, B. A., Wisconsin, 1909. A history of status of trade unions under the law. 1927. *Wisconsin*. Completed.
- HARRY DE MERLE WOLF, Ph. D., Chicago, 1926. The Railroad Labor Board. Completed. (Published by the University of Chicago Press.)

Money, Prices, Credit, and Banking

- FREDERICK A. BRADFORD, Ph. D., Michigan, 1926. Recent banking developments in the City of Cleveland. Completed.
- WILLIAM ADAMS BROWN, Jr., A. B., Yale, 1917. The return of England to the gold standard. 1928. *Columbia*.
- WILLIAM JOSEPH CARSON, B. S., Georgia, 1921; M. A., Columbia, 1922. Banking and credit in the South. 1928. *Robert Brookings*.
- JOSEPH WILLIAM CHARLTON, A. B., Oberlin, 1924. The history of banking in Illinois since 1860. 1928. *Chicago*.
- LEO J. CHASSEE, A. B., Wisconsin, 1923; A. M., Columbia, 1924. Personal credit. 1927. *Columbia*.
- T. CHIN, A. B., St. John's University, Shanghai, 1919; A. M., Columbia, 1922. John Locke's monetary theory. 1928. *Columbia*.
- LAUCHLIN BERNARD CURRIE, B. Sc. (Econ.), London, England, 1925. Money and banking in Canada, 1914-26. 1928. *Harvard*.
- CLIFFORD AUSTIN CURTIS, Ph. D., Chicago, 1926. The Canadian banking system, 1910-25. Completed.
- ELEANOR LANSING DULLES, Ph. D., Radcliffe, 1926. The French franc since the war. Completed.
- HOWARD SYLVESTER ELLIS, A. B., Iowa, 1920; A. M., Michigan, 1922; A. M., Harvard, 1924. Monetary theory in Germany in recent years. 1927. *Harvard*.
- DONALD MACDOUGALL HALLEY, A. B., Cornell, 1923; A. M., Northwestern, 1926. Some aspects of currency reform. 1929. *Northwestern*.
- EARL JEFFERSON HAMILTON, S. B., Mississippi A. and M. College, 1920; A. M., Texas, 1924. The history of money and prices in Andalusia, 1500-1700. 1928. *Harvard*.
- SEYMOUR EDWIN HARRIS, Ph. D., Harvard, 1926. The assignats. Completed.
- FORREST FRANK HILL, B. S., Saskatchewan, 1923. An economic study of the problems of making farm loans. 1927. *Cornell*.

- JAMES HOLLADAY, B. S., Georgetown (Ky.), 1915; M. S., Illinois, 1923. *History of banking in Canada, 1907-27.* 1927. *Iowa.* Completed.
- CHARLES DONALD JACKSON, S. B., Northwestern, 1920; M. B. A., 1921; A. M., Harvard, 1925. *Agricultural credit.* 1928. *Harvard.*
- THATCHER C. JONES, B. C. S., New York, 1916; M. C. S., 1917; B. S., 1922; A. M., Columbia, 1924. *Par check clearance and collection.* 1928. *Columbia.*
- YAU SING LEONG, A. B., University of Hawaii, 1924; A. M., Teachers College, Columbia, 1925. *The theory of credit control by central banks.* 1928. *Columbia.*
- JOHN E. McDONOUGH, B. A., Dartmouth, 1918; M. A., 1921. *Recent tendencies and prospects of the national banks in competition with other American banking units.* 1927. *Yale.*
- LAWRENCE PHILIP McGRATH, S. B., Illinois, 1921; M. F. S., Georgetown, 1924. *History of the Bank of Indiana.* 1929. *Harvard.*
- ARTHUR WILLIAM MARGET, Ph. D., Harvard, 1926. *The loan fund: a pecuniary approach to the problem of the determination of the rate of interest.* Completed.
- CHARLES LEE PRATHER, B. E., Eastern Illinois State Teacher's College, 1922; A. M., Illinois, 1923. *History of the gold policy of the Federal Reserve Board since the war period.* 1927. *Illinois.*
- WINFIELD W. RIEPLER, A. B., Amherst, 1921. *Interest rates and money markets in the United States.* 1927. *Robert Brookings.*
- ERNEST RAY SHAW, A. B., Cornell, 1922; A. M., Illinois, 1924. *The development of orthodox theories of commercial banking in England and the United States.* 1928. *Chicago.*
- LOUIS SHERE, A. M., Manitoba, 1922. *Credit control in Canada.* 1928. *Columbia.*
- ABRAHAM GEORGE SILVERMAN, S. B., Harvard, 1921; A. M., Stanford, 1923; A. M., Harvard, 1924. *Discount rates in central money markets: an international comparison.* 1928. *Harvard.*
- JAMES GERALD SMITH, A. B., Princeton, 1919; A. M., 1922. *The development of trust companies in the United States.* 1927. *Princeton.* Completed.
- WALTER B. SMITH, A. B., Oberlin, 1917; A. M., Harvard, 1924. *Money and prices in the United States from 1800 to 1825.* 1928. *Harvard.*
- SHIRLEY DONALD SOUTHWORTH, A. B., Princeton, 1918; A. M., 1921. *Branch banking in the United States.* 1927. *Princeton.* Completed.
- WALTER EARL SPAHR, Ph. D., Columbia, 1926. *The clearing and collection of checks.* Completed. (Published by Bankers Publishing Company, New York.)
- MATSUYO TAKIZAW, Ph. D., Columbia, 1927. *The penetration of money economy in Japan and its effects upon social and political institutions.* Completed. (Published in *Columbia Studies in History, Economics and Public Law.*)
- WILLIAM BAYARD TAYLOR, B. A., Beloit, 1918; M. A., Minnesota, 1923. *Labor banks.* 1928. *Minnesota.*
- ROLLIN GEORGE THOMAS, A. B., Cornell College, 1919; A. M., Chicago, 1922. *The development of state banks and trust companies in Chicago.* 1927. *Chicago.*
- LEONARD L. WATKINS, Ph. D., Michigan, 1926. *Bankers' balances.* Completed.
- JAMES O. WETTERAU, A. B., Columbia, 1922; A. M., 1923. *The First United States bank, 1791-1811.* 1928. *Columbia.*
- VIRGIL WILLIT, B. A., Otterbein, 1921; M. A., Ohio State, 1923. *The Federal Farm Loan System.* 1928. *Ohio State.*
- RALPH A. YOUNG, A. B., Ohio Wesleyan, 1923; M. B. A., Northwestern, 1925. *Central bank policy and the theory of foreign exchanges.* 1928. *Pennsylvania.*

Public Finance, Taxation, and Tariff

- BUSHROD W. ALLIN, B. S., Wisconsin, 1921. Taxation from the standpoint of Wisconsin farmers. 1927. *Wisconsin*. Completed.
- ROY ARTHUR BALLINGER, B. S., Minnesota, 1924; M. A., 1925. The taxation of agriculture in Minnesota. 1928. *Minnesota*.
- E. CLAIR BANCROFT, A. B., Acadia, 1914; A. B., Yale, 1915. The financial history of Connecticut, 1861-192-. 1928. *Yale*.
- THOMAS ANDREW BEAL, A. B., Utah, 1906; A. M., Columbia, 1910; M. S., 1919. History of taxation in Utah. 1928. *Columbia*.
- WARD LESLIE BISHOP, Ph. D., Illinois, 1927. Some aspects of municipal debt limitation in Illinois, with special reference to 24 cities, from 1915 to 1925.
- HENRY JOHN BITTERMAN, A. B., Amherst, 1925. A study of federal and state grants in aid. 1928. *Chicago*.
- FLOYD F. BURTCHETT, B. A., North Dakota, 1920; M. A., California, 1921. The development of the fiscal system of Wisconsin, 1900-25. 1927. *Wisconsin*. Completed.
- CLAUDE A. BUSS, A. B., Washington Missionary College, 1922; A. M., Susquehanna, 1924. The relation of customs autonomy to the political situation in China. 1927. *Pennsylvania*. Completed.
- IRVING JOSLYN CALL, B. S., Cornell, 1922. Farm property taxation in New York. 1927. *Cornell*.
- HUA YING CHEN, A. B., New York, 1924; A. M., Columbia, 1925. Taxation of corporate earnings. 1928. *Columbia*.
- TSUNG D. CHEN, Ph. D., Harvard, 1926. The relation between local government expenditures and density of population in Massachusetts. Completed.
- ARTHUR G. COONS, A. B., Occidental, 1920; A. M., Pennsylvania, 1922. The foreign loans to the Chinese government and Chinese capacity to pay. 1927. *Pennsylvania*. Completed.
- DONALD HILLS DAVENPORT, Ph. D., Columbia, 1926. An analysis of the cost of municipal and state government, and the relation of population to cost of government, net taxable income, and full value of real property in New York State. Completed. (Published, Albany, Lyon.)
- OTTAVIO DELLE DONNE, Dr. of Economics in Commercial Science, University of Rome, 1923; accountant and commercial expert, Aquila, 1919. European tariff policies since the World War. 1928. *Columbia*.
- ISAAC DOUGHTEN, A. B., Harvard, 1907; A. M., Pennsylvania, 1922. Evolution of the school bonded debt of Pennsylvania. 1928. *Pennsylvania*.
- ERIC ENGLUND, S. B., Oregon Agricultural College, 1918; A. B., Oregon, 1919; S. M., Wisconsin, 1920. Studies in taxation in Kansas. 1927. *Harvard*. Completed.
- J. HAROLD ENNIS, A. B., Cornell College, 1925; A. M., Columbia, 1926. Policies of Dallas in the early financial history of the United States. 1928. *Columbia*.
- RALPH H. FARMER, B. A., Oberlin, 1916. Taxation of banks in the United States. 1928. *Minnesota*.
- HELEN ELLIOTT CHERINGTON FARNSWORTH, B. S., Ohio State, 1924; M. A., 1924. The financial system of California with special reference to the operation of Article XIII, Section XIV, of the State Constitution. 1928. *Stanford*.
- DAVID MANDEL HALFANT, Ph. B., Chicago, 1920; A. M., Chicago, 1921. Some considerations on the cancellation of foreign debts. 1928. *Columbia*.

- CLARENCE HEER, Ph. D., Columbia, 1926. The post-war expansion of state expenditures: an analysis of the increase between 1917 and 1923 in the cost of state government of New York. Completed. (Published by National Institute of Public Administration, New York.)
- FRANKLIN LIEN HO, Ph. D., Yale, 1926. Procedure and machinery in the administration of income taxation: a comparative study. Completed.
- HSIEN-JU HUANG, A. B., Oberlin, 1923; A. M., Columbia, 1924. Railroad taxation in the United States. 1927. *Columbia*.
- RUTH GILLETTE HUTCHINSON, A. B., Rochester, 1920; A. M., Columbia, 1921. Separation of state and local revenue. 1928. *Columbia*.
- JENS PETER JENSON, Ph. D., Chicago, 1926. The general property tax. Completed.
- ORVILLE M. JOHNSON, B. S., Ohio, 1908. The taxation of farm land. 1928. *Wisconsin*.
- HUBERT R. KEMP, B. A., Toronto, 1915; M. A., 1919. Taxation in Canada. 1927. *Toronto*.
- SIMEON ELBRIDGE LELAND, Ph. D., Chicago, 1926. The classified property tax in the United States. Completed.
- SHU MONG LING, Ph. D., Illinois, 1927. China's foreign indebtedness.
- THOMAS FREDLAY MACKENZIE, A. B., Sydney, 1919; B. Ec., 1919; A. M., Columbia, 1921. A history of the tariff in Australia. 1928. *Columbia*.
- FRANK B. MESEKE, Ph. B., Chicago, LL. B. and LL. M., George Washington University. Tax exempt securities. *American University*.
- MATTHEW CARGILL MITCHELL, A. B., Geneva College, Pa., 1911. Assessment of property values in American cities. 1929. *Harvard*.
- ISAAC TAYLOR MUSSER, JR., B. S., Virginia, 1921; M. S., 1926. French fiscal system since the close of the world war. 1928. *Virginia*.
- ANDREW JACKSON NEWMAN, A. B., Washington University, 1910; M. A., Missouri, 1911. The element of depreciation in determination of income subject to taxation.
- J. M. NOVOTNY, J. D., Prague, 1921. The taxation of earned incomes. 1928. *Pennsylvania*.
- CORALIE PARKER, A. B., Meredith, 1921; A. M., Columbia, 1924. Business and license taxes in the South. 1928. *Columbia*.
- LEO PASVOLSKY, A. B., College of the City of New York, 1916. Finances of the Danubian States. 1927. *Columbia*.
- L. OWENS REA, A. B., Johns Hopkins, 1924. Financial history of Baltimore since 1900. 1928. *Johns Hopkins*.
- CARL SUMNER SHOUP, A. B., Stanford, 1924. French post-war taxation. 1928. *Columbia*.
- HENRY CALVERT SIMONS, JR., A. B., Michigan, 1920. The economics of income taxation. 1928. *Chicago*.
- HERBERT D. SIMPSON, B. A., Princeton, 1902; M. A., 1904. Development of public service taxation in the United States. 1926. *Wisconsin*. Completed.
- WALTER LLOYD SLIFER, A. B., Blue Ridge, 1920; A. M., Chicago, 1922. Financial history of the state of Indiana, 1816-60. *Chicago*.
- L. EDWIN SMART, A. B., Ohio State, 1916; M. A., 1923. The inheritance tax in American states. 1928. *Ohio State*.
- HERMAN JOHN STRATTON, A. B., Evansville, 1923. The pottery industry with special reference to the tariff. 1927. *Chicago*.

- BENJAMIN P. WHITTAKER, B. A., Colgate, 1921. An analysis of gross earnings as a basis for corporation taxation. 1928. *Yale*.
- CHARLES P. WHITE, Ph. D., Pennsylvania, 1927. The taxation of corporations for state purposes. Completed.

Population and Migration

- HENDERSON H. DONALD, Ph. D., Yale, 1926. The negro in industry. Completed.
- ROY L. GARIS, A. B., Virginia, 1919; A. M., 1920. America's immigration policy. 1927. *Columbia*.
- ALMA HERBST, A. B., Ohio, 1914. The negro girl in Chicago industry. 1927. *Chicago*.
- ROY H. HOLMES, A. B., Hillsdale, 1911; A. M., Michigan, 1912. A study in the origins of distinguished living Americans. 1927. *Michigan*.
- FLORENCE D. JANSON, Ph. B., Chicago, 1914; A. M., 1918. The economic causes of Scandinavian immigration to the United States. 1928. *Pennsylvania*.
- RUTH REED, Ph. D., Columbia, 1926. Negro illegitimacy in New York City. Completed. (Published in Columbia Studies in History, Economics, and Public Law.)
- CHING CHAO WU, A. B., Minnesota, 1925; A. M., Chicago, 1926. Chinese migration. 1928. *Chicago*.

Social Problems and Reforms

- HARRIET HOWE AHLERS, A. B., Minnesota, 1915. Progress of the individual through worker's education. 1928. *Bryn Mawr*.
- READ BAIN, Ph. D., Michigan, 1926. The growth of an institution: a sociological interpretation of the Tillamook County Creamery Association of Tillamook, Oregon. Completed.
- ALFRED G. BARRY, B. A., Albion, 1917; M. A., Wisconsin, 1925. The social possibilities of personality measurement or diagnosis comparison of criminological and penological theories of Lombroso, Garofalo, and Ferri. 1926. *Wisconsin*.
- HERBERT GEORGE BLUMER, A. B., Missouri, 1921; A. M., 1922. Method in social psychology. 1927. *Chicago*.
- EZRA BOWEN, A. B., Lehigh, 1913; A. M., 1916. Population and the standard of living. 1928. *Columbia*.
- GEORGE EVERETT BREECE, A. B., Missouri, 1913; A. M., 1918. The teaching of sociology in American colleges and universities. 1927. *Chicago*.
- LAWRENCE GUY BROWN, A. B., Dakota Wesleyan, 1921. A sociological study of city missions in Chicago. 1927. *Chicago*.
- DOROTHY WILLIAMS BURKE, A. B., Vassar, 1913. The boys' court in Chicago. 1927. *Chicago*.
- WILLIAM WILLARD BURKE, A. B., Denver, 1916. The public care of the insane with special reference to the Jacksonville Institution, 1847-1909. 1927. *Chicago*.
- ROY CLINTON CAVE, A. B., Washington, 1923; M. A., 1924. Social stratification and market price. 1928. *California*.
- ROY J. COLBERT, B. A., DePauw, 1914; M. A., Wisconsin, 1922. Organization and administration of community social work agencies. 1927. *Wisconsin*.

- LEONARD SLATER COTTELL, JR., S. B., Virginia Polytechnic, 1922; A. M., Vanderbilt, 1926. Juvenile delinquency among the negro groups of Chicago. 1929. *Chicago*.
- PAUL FREDERICK CRESSEY, Ph. B., Denison, 1921. Succession of cultural groups in the city of Chicago. 1928. *Chicago*.
- ADA JEANETTE DAVIS, A. B., Oberlin, 1916. Recreational and leisure time activities of children in contrasted neighborhoods. 1927. *Chicago*.
- HARMON OPDYKE DEGRAFF, Ph. D., Chicago, 1926. A study of the juvenile court of Iowa with special reference to Des Moines. Completed.
- PERRY P. DENUNE, B. A., Hiram, 1917; M. A., Ohio State, 1922. Town-country relations in several Ohio counties. 1928. *Ohio State*.
- MABEL AGNES ELLIOTT, A. B., Northwestern, 1922; M. A., 1923. Reform through education: a study made at Sleighton Farm of the effect of the Farm's training on girls admitted in 1913, 1914, and 1915 who are now at least twenty-five years old. 1927. *Bryn Mawr*.
- CONSTANTINE JOHN FECHER, A. B., Miami, 1924. The longevity of members of religious sisterhoods. 1927. *Catholic University*. Completed.
- WINIFRED FROST, A. B., Carleton, 1925. Motion picture: a problem in control. 1928. *Robert Brookings*.
- DOROTHY P. GARY, A. B., Westhampton, 1918; A. M., Columbia, 1920. Certain behavior patterns of Southern textile workers: a methodological study. 1927. *Minnesota*.
- CHARLOTTE GOWER, A. B., Smith, 1922; A. M., Chicago, 1926. An ethnological-sociological study of a Sicilian peasant community. 1929. *Chicago*.
- LORAIN RICHARDSON GREEN, Ph. B., Chicago, 1918; A. M., 1919. The negro slum and the negro community in Chicago. 1927. *Chicago*.
- KYUNG-DUCK HAR, S. B., Harvard, 1925; A. M., 1927. A survey of social conditions in Korea, with particular reference to vocational education and its effects. 1928. *Harvard*.
- REXFORD B. HERSEY, A. B., West Virginia, 1916; B. A., (Oxon), Oxford, 1920; M. A. (Oxon.), 1926. Industrial unrest from the physiological and psychological standpoint. 1929. *Pennsylvania*.
- A. C. C. HILL, JR., A. B., Dartmouth, 1925. The marketing of college teachers. 1928. *Robert Brookings*.
- LEILA HOUGHTLING, Ph. D., Chicago, 1926. The income and standard of living of unskilled laborers in Chicago. Completed. (Published by the University of Chicago Press.)
- FRANCIS RETA JACKSON, Ph. B., DePauw, 1921; M. B. A., Northwestern, 1925. Recreational uses of land. 1928. *Northwestern*.
- CORNELIUS CICERO JANZEN, Ph. D., Chicago, 1926. A social study of the Mennonite settlement in the counties of Marion, McPherson, Harvey, Reno, and Butler, Kansas. Completed.
- CARL SMITH JOSLYN, A. B., Harvard, 1920. The relative influence of nature and nurture in social stratification. 1928. *Harvard*.
- TADAO KAWAMURA, A. B., Doshisha, 1920; A. M., Chicago, 1924. Class conflict in Japan as affected by expansion of industry and trade. 1927. *Chicago*.
- JOHN LANDESCO, Ph. B., Chicago, 1924. Organized crime in Chicago. 1929. *Chicago*.
- JAMES G. LEYBURN, B. A., Trinity (N.C.), 1920; M. A., 1921. The frontier family. 1927. *Yale*.

- ANDREW WILLIAM LIND, A. B., University of Washington, 1924; A. M., 1925. Indices of mobility in an urban community. 1928. *Chicago*.
- HENRY DONALD MCKAY, A. B., Dakota Wesleyan, 1923. The development of personality traits. 1929. *Chicago*.
- JOHN F. MARKEY, A. B., Southern California, 1921. The concept of the symbolic environment as a social control mechanism: a summary and analysis. 1925. *Minnesota*.
- RYOZO MATSUMOTO, B. A., Keio, Japan, 1921; M. A., Wisconsin, 1924. Comparative survival tendencies of superior and inferior elements in contemporary society. 1927. *Wisconsin*.
- O. MYKING MEHUS, A. B., Augsburg, 1916; M. A., North Dakota, 1920. Social and educational value of extra-curricular activities in a university. 1927. *Minnesota*.
- NORMAN L. MEYERS, B. A., Minnesota, 1926. Theory of the judicial dissent. 1928. *Robert Brookings*.
- RICHMOND PEARSON MILLER, A. B., Swarthmore, 1924. The social ethics of Quakerism. 1928. *Harvard*.
- COYLE ELLIS MOORE, S. B., The Citadel, 1920; A. M., North Carolina, 1925. Administration and cost of public welfare in Illinois, 1909-26. 1927. *Chicago*.
- ELON H. MOORE, B. A., Albion, 1919. The penal theories of Edward Livingston. 1927. *Wisconsin*. Completed.
- RALPH WALDO MORRISH, B. S., Purdue, 1920. Organization of fairs and expositions. 1928. *Chicago*.
- ANNE HENDRY MORRISON, A. B., Missouri, 1914. A study of the children of working mothers. 1928. *Bryn Mawr*.
- EARL DEWEY MYERS, A. B., Southwestern, 1920; A. M., Northwestern, 1923. A history of parole in the United States. 1927. *Chicago*.
- WILLIAM OLDIGS, B. A., Midland, 1923. Analysis of pardons in Wisconsin since 1899. 1929. *Wisconsin*.
- VIVIEN MARIE PALMER, Ph. B., Chicago, 1918. Indices of community organization. 1927. *Chicago*.
- MILDRED B. PARTEN, A. B., Minnesota, 1923. A study of the role of socialization and the formation of social groups among pre-school children. 1927. *Minnesota*.
- WINFRED E. PAYNE, B. A., Utah, 1915; M. A., Chicago, 1922. Studies in the behavior of conflicting economic groups. 1927. *Ohio State*.
- PAUL JOHN WILLIAM FIGORS, S. B., Harvard, 1924; A. M., 1925. Geisteswissenschaft and the ethics of personality, with special reference to the nineteenth century pioneers in the United States of America. 1927. *Harvard*.
- MARGARET PRYOR, B. A., Texas, 1916; M. A., 1918. A study in consumption. 1927. *Wisconsin*.
- JAMES ALFRED QUINN, A. B., Missouri, 1917; A. M., 1921. Social process. 1927. *Chicago*.
- ROBERT REDFIELD, Ph. B., Chicago, 1920; J. D., 1921. An ethnological-sociological study of a Mexican peasant community. 1927. *Chicago*.
- EUGENIA LEA REMELIN, A. B., Cincinnati, 1918; A. M., 1923. Empathy as a sociological concept. 1928. *Chicago*.
- MARION WESLEY ROPER, B. Ed., University of Washington, 1922; A. M., 1923. The mores of children and youth in a given community. 1928. *Chicago*.

- LUMAN W. SAMPSON, B. A., Upper Iowa, 1911; M. A., Iowa, 1912. After-careers of five hundred paroled prisoners of Wisconsin. 1928. *Wisconsin*.
- WILEY BRITTON SANDERS, A. B., Emory, 1919; A. M., 1920; A. M., North Carolina, 1921. A history of the state prison system of Illinois. 1927. *Chicago*.
- MARION SCHAFFNER, Ph. B., Chicago, 1911. The boarding fund of the Juvenile Court of Cook County and its administration. 1927. *Chicago*.
- HARRY BIRD SELL, A. B., Pittsburgh, 1920. Propaganda as social phenomena. 1927. *Chicago*.
- ELMER LEONARD SETTERLUND, Ph. B., Redlands, 1916; A. M., Northwestern, 1924. A study of the Protestant Church in the apartment house areas of the urban environment. 1927. *Chicago*.
- RUTH SHONLE, Ph. D., Chicago, 1926. Suicide: a study of personal disorganization. Completed.
- EYLER NEWTON SIMPSON, Ph. D., Chicago, 1926. Wishes: a study in social psychology. Completed.
- RAYMOND B. STEVENS, A. B., Denison, 1912; B. D., Rochester Theological Seminary, 1916. Social and religious influences of the small denominational college. 1928. *Michigan*.
- HELEN LOUISE STITT, B. A., Ohio State, 1910; M. A., 1924. Woman's ability to compete in the economic world with men. 1929. *Ohio State*.
- JEANNE ESTHER SUMNER, A. B., California Christian, 1923; A. M., Columbia, 1924. A study of vocational choices. 1929. *Chicago*.
- FREDERIC MILTON THRASHER, Ph. D., Chicago, 1926. The gang: a study of 1,313 gangs in Chicago. Completed. (Published by the University of Chicago Press.)
- CLARK TIBBITTS, S. B., Lewis Institute, 1924. Social settlements. 1928. *Chicago*.
- GEORGE HENRY VON TUNGELN, Ph. D., Harvard, 1926. Rural social surveys in the United States. Completed.
- HARRY H. TURNEY-HIGH, B. A., St. Stephens, 1922; M. A., Wisconsin, 1924. Probation in Wisconsin. 1928. *Wisconsin*.
- FRANK M. VREELAND, A. B., Alma, 1922; M. A., Michigan, 1923. The process of social reform. 1928. *Michigan*.
- WALTER THOMPSON WATSON, A. B., Southern California, 1917; A. M., 1919. Social attitudes resulting from division of labor. 1927. *Chicago*.
- VERNON ORVAL WATTS, A. B., Manitoba, 1918; A. M., Harvard, 1923. Economic waste. 1928. *Harvard*.
- CLAIR WILCOX, B. S., Pennsylvania, 1919; A. M., Ohio, 1922. The parole of adults from state penal institutions in Pennsylvania and other commonwealths. 1927. *Pennsylvania*. Completed.
- ARTHUR F. WILEDEN, B. A., Wisconsin, 1924; M. A., 1925. Study of organizations in selected rural communities: (1) historically; (2) attitudes; (3) carrying power. 1928. *Wisconsin*.
- LOUIS WIRTH, Ph. D., Chicago, 1926. The ghetto in Chicago. Completed.
- ELIZABETH WISNER, A. B., Tulane, 1914; S. M., Simmons, 1922. A study of the judicial system of Illinois. 1927. *Chicago*.

- CHARLES L. WU, B. A., Wisconsin, 1924; A. M., Missouri, 1925. The attitude towards negroes, Jews, and orientals in America. 1927. *Ohio State*.
- OLIVER M. ZENDE, B. A., Manchester, 1924. Clericalism. 1929. *Wisconsin*.
- FREDERICK McCLEURE ZORRAUGH, A. B., Oberlin, 1925. The truant. 1929. *Chicago*.

Insurance and Pensions

- WILLIAM HENRY BAMBERG, A. B., Tennessee, 1923; M. B. A., Northwestern, 1924. A study of life insurance from the standpoint of the insured. 1928. *Northwestern*.
- Y. DUNG, B. A., in Econ., St. John's, Shanghai, China; M. B. A., Pennsylvania, 1926. Hindrances to the development of life insurance in China. 1928. *Pennsylvania*.
- JOHN BERTWELL EWING, A. B., William Jewell, 1916; A. M., Washington University, 1917. A critical review of the health insurance movement in the United States. 1928. *Chicago*.
- OLGA HALSEY, B. A., Wellesley, 1912; M. A., 1916. Unemployment insurance. 1928. *Wisconsin*.
- CHARLES LASELLE JAMISON, A. B., Wisconsin, 1913; A. M., 1924. Insurability of the credit risk. 1927. *Chicago*.
- JOHN FRANCIS JEREMIAH, B. S. in Econ., Pennsylvania, 1920; A. M., 1924. Co-insurance practices in fire insurance. 1928. *Pennsylvania*.
- CLYDE M. KAHLER, B. S., in Econ., Pennsylvania, 1922; M. A., 1924. Use and occupancy insurance. 1928. *Pennsylvania*.
- CONSTANCE A. KIEHEL, B. A., Smith, 1915; M. A., Wisconsin, 1926. Voluntary unemployment insurance in several European countries. 1928. *Wisconsin*.
- CHESTER A. KLINE, B. S. in Econ., Pennsylvania, 1924; M. A., 1927. Windstorm insurance. 1929. *Pennsylvania*.
- DAVID McCAHAN, B. S. in Econ., Pennsylvania, 1920; M. A., 1922. State insurance funds in the United States. 1927. *Pennsylvania*.
- MAURICE BENNETT MYER, S. B., Kansas State Normal, 1924. A study of industrial accident cases under the Illinois compensation law. 1928. *Chicago*.
- JAY LESLIE O'HARA, B. A., Michigan, 1915. Workmen's compensation in Minnesota. 1927. *Minnesota*.
- STEPHEN B. SWEENEY, Ph. D., Pennsylvania, 1927. The nature and development of aviation insurance. Completed.
- MAURICE TAYLOR, A. B., Harvard, 1916, A. M., 1925. Principles and practices of relief-giving. 1928. *Harvard*.
- SIDNEY WARREN WILCOX, B. S., California, 1905. Pension plans in Chicago industrial establishments. 1927. *Chicago*.

Pauperism, Charities, and Relief Measures

- LESTER M. JONES, B. A., Baker, 1909; M. A., Columbia, 1913. The contribution of the Quakers to philanthropy. 1927. *Wisconsin*. Completed.
- FLOYD MERVILE LINDEMANN, A. B., Kansas, 1924; A. M., 1926. Charitable foundations in Chicago. 1927. *Chicago*.

Statistics and Its Methods

- DOROTHY CAROLIN BACON, A. B., Radcliffe, 1922; A. M., 1924. The dispersion of wholesale commodity prices in the United States, 1890-96. 1928. *Radcliffe*.
- ROYAL EDGAR DAVIS, A. B., DePauw, 1921; M. A., 1924. The relation of price of United States steel stocks and bonds to various related series. 1929. *Ohio State*.
- J. FREDERIC DEWHURST, B. S., Washington, 1918; A. M., Pennsylvania, 1922. Construction of indexes of employment and wages in Pennsylvania. 1928. *Pennsylvania*.
- MAURICE LEVEN, B. A., Wisconsin, 1917. Income in the various states. 1927. *Wisconsin*. Completed. (Published by the National Bureau of Economic Research.)
- FRANK W. NOTESTEIN, B. S., Wooster, 1923. The vital statistics of Cattaraugus County, New York, 1916-24. 1927. *Cornell*.
- EDGAR Z. PALMER, B. A., Swarthmore, 1919. The comparative trend of incomes of economic classes. 1928. *Wisconsin*.
- RICHARDSON H. ROWNTREE, B. B. A., University of Washington, 1924; M. B. A., 1926. Forecasting the production and price of cotton in the United States. 1929. *Ohio State*.
- WOODLIEF THOMAS, B. S., Pennsylvania, 1922. Measurement of production. 1928. *Robert Brookings*.
- GORDON H. WARD, B. S., Massachusetts Agricultural College, 1925; A. M., Minnesota, 1926. Forecasting the price of Pacific Coast eggs in the New York market. 1928. *Columbia*.
- CHESTER HOWARD WHILDEN, JR., B. A., Harvard, 1921; M. A., 1922. The measurement and forecasting of the technical position of the stock market. 1928. *Yale*.

DOCUMENTS, REPORTS, AND LEGISLATION

Operating Combination in Canadian Industry as Revealed in the Census of Manufactures¹

The establishment is the unit for census purposes; but the unit of operation often consists of several establishments. The factory expands to the limit of economic operation and then combines with other factories in the same complementary industries to obtain still greater economic strength. A few very large combinations have achieved unsought notoriety by rousing the fear of monopoly and the suspicion of overcapitalization, and have monopolized the public attention. The less exciting combination of two or three factories which is going on silently in most industries has almost escaped notice. We are indebted to Dr. Willard Thorp's *Report on the Integration of Industrial Operation in the United States* for suggesting how the *Census of Manufactures* might throw light on this development. The Dominion Bureau of Statistics, like the United States Census Department, keeps a file of all the establishments to which the schedules for the annual census of manufactures are to be sent. A separate file is kept for those cases where the schedules for two or more factories are to be sent to a single head office. This file gives us a list of combinations in their simplest and most openly acknowledged form, where two or more factories are operated from a single head office. The census ignores ownership and cannot yield data on control through stock ownership or interlocking directorates; it can throw light on "operating" combination, but not on financial combination.

A study of this "head office file" at Ottawa in 1926 reveals the existence of 295 such combinations, containing 1,273 establishments, or about 6 per cent of the total. In the United States in 1919 there were 5,838 such "central-office groups," as Dr. Thorp calls them, operating 21,465 establishments, or about 8 per cent of the total. Before proceeding with the analysis of the Canadian figures, one should emphasize the fact that this is not an exhaustive list of combinations but only of those who report the activities of their constituent parts from one head office to the census of manufactures. Especially does it exclude any combination of manufacturing with such activities as agriculture, mining or trade.

Table I shows that these head office groups are not peculiar to any particular class of industry, but are scattered generally through all industries. The importance of this development in each type of industry may be judged from the percentage of all establishments in head office groups. If one could show the percentage of the total number of employees in these head office groups the results would be more significant, and probably more impressive.

¹The writer wishes to thank Mr. R. H. Coates, Dominion statistician, for permission to publish this article. The investigation was carried out during a temporary appointment to the staff of the Dominion Bureau of Statistics for research in the summer of 1926.

TABLE I—ESTABLISHMENTS IN HEAD-OFFICE COMBINATIONS BY GENERAL GROUPS OF INDUSTRIES, 1926

General group	No. of head-office combinations	No. of est. in head-office combinations	Total no. of est.	Percentage of est. in head-office combinations
Vegetable products	36	228	4,414	5.2
Animal products	84	394	4,816	8.2
Textiles	39	137	1,781	7.7
Wood products	70	201	6,906	2.9
Iron products	26	102	1,003	9.8
Non-ferrous products	3	16	341	4.9
Non-metallic mineral products	18	101	1,095	9.1
Chemical products	14	75	457	16.4
Miscellaneous industries	6	19	1,365	1.4
Total	295	1,273	22,178	5.7

Two further tables are presented to show the size and complexity of these combinations. The size can only be shown by the number of establishments combined; a better measure would be the number of employees, but this is not available. The test of complexity is the number of different industries represented in the combination; it must be realized that different industries must be interpreted to mean coming within a different classification for census purposes. It will be noticed that nearly half of the combinations only contain two establishments, and nearly three-quarters are restricted to one industry.

TABLE II—DISTRIBUTION OF HEAD-OFFICE COMBINATIONS ACCORDING TO THE NUMBER OF ESTABLISHMENTS OPERATED, BY GENERAL GROUPS OF INDUSTRIES, 1926

General group	Number of head-office combinations operating given number of establishments						
	2 est.	3-5 est.	6-10 est.	11-15 est.	16-25 est.	26-50 est.	Over 50 est.
All industry	141	107	31	9	4	2	1
Vegetable products	10	20	5	—	—	—	1
Animal products	38	31	8	4	1	—	—
Textiles	23	12	2	1	1	2	—
Wood products	46	19	4	1	—	—	—
Iron products	12	10	3	1	—	—	—
Non-ferrous metals	1	1	1	—	—	—	—
Non-metallic minerals	5	5	7	—	1	—	—
Chemical industries	3	6	1	2	1	—	—
Miscellaneous industries	3	3	—	—	—	—	—

TABLE III—DISTRIBUTION OF HEAD-OFFICE COMBINATIONS ACCORDING TO THE
NUMBER OF INDUSTRIES REPRESENTED AMONG THE ESTABLISHMENTS
OPERATED, BY GENERAL GROUPS OF INDUSTRIES, 1926

General Group	Number of head-office combinations having given number of industries represented among the establishments operated						
	1 indus.	2 indus.	3 indus.	4-5 indus.	6-7 indus.	8-9 indus.	10 indus. and over
All industries	212	69	7	4	2	—	1
Vegetable products	36	—	—	—	—	—	—
Animal products	60	22	2	—	—	—	—
Textiles	24	11	2	1	—	—	1
Wood products	43	25	2	—	—	—	—
Iron products	18	5	—	2	1	—	—
Non-ferrous metals	1	1	—	1	—	—	—
Non-metallic minerals	18	—	—	—	—	—	—
Chemical industries	7	4	1	—	1	—	—
Miscellaneous industries	5	1	—	—	—	—	—

One may attempt to clothe the dry bones of these tables by giving some examples of the kind of combinations which are represented.

Fruit and vegetable canning. 9 combinations including 113 plants, but of these 86 are in one combination; the typical size is 3 to 4 establishments.

Bakeries. 7 combinations operating 43 establishments.

Flour-mills. 7 combinations operating 30 establishments.

Fish canning. 38 combinations operating 150 establishments. In New Brunswick are two combinations of fruit and vegetable and fish canning, one with 6 fruit and vegetable canneries and 12 fish canneries, the other with 5 for fruit and vegetables and 10 for fish.

Dairies. 10 "simple" combinations of dairies operating 80 plants, 7 of these combinations are in the Prairie Provinces. There are also 5 combinations of dairies and condenseries, and 2 combinations of dairies and meat packing establishments of which one operates 36 dairies and 4 packing houses.

Leather trade. 3 simple combinations of tanneries, 8 of tanneries with boot and shoe factories, 3 of tanneries with glove factories, 2 of tanneries with two different final products, in one case boots and gloves, in the other case boot findings and belting. There is one combination of boot factories, one of harness factories, and two of boot and harness factories. All these combinations are small, including only 2 or 3 establishments.

Wood products. 11 simple combinations of saw mills operating 22 mills, and 10 simple combinations of pulp and paper mills operating 28 mills. There are 22 combinations of saw mills and pulp and paper mills operating 38 saw mills and 30 pulp and paper mills. There

- is one case of a saw mill combined with a furniture factory, another of a saw mill and a sash and door factory.
- Iron and steel. 3 combinations start with iron and include all processes up to final steel products, including many by-product industries.
- Compressed gases. 5 combinations operating 28 plants.
- Coal tar products. 3 combinations of coal tar distillers, one of which also includes roofing products.

This sample may suffice to indicate the general nature of the development, a development which invites more detailed study of the functional structure of these combinations on the lines suggested by Dr. Thorp.

As a last comment, in examining the address file one notices that there are a large number of establishments with head offices in the United States, being Canadian members of an American group. For instance, in the chemical trade 39 establishments had their head offices in the United States, similarly five pulp and paper establishments, and a number of fish canneries. Since the *Census of Manufactures* ignores ownership it can give us no complete data on the penetration of United States capital—but just as some light is thrown on combination so might some light be thrown on this penetration if a list were prepared of those establishments which report from head offices in the United States.

University of Toronto.

V. W. BLADEN.

Industries and Commerce

The United States Department of Commerce has issued the following Bulletins in its Trade Information series:—No. 457, *The Bombay Bullion Market*, by D. C. Bliss, Jr. (pp. 79, 10c.); No. 471, *Palm-Oil Industry of Sumatra and West Africa*, by S. R. Redecker and F. Messenger (pp. 17, 10c.); No. 472, *Business Practice in Greece*, by E. A. Plitt (pp. 16, 10c.); No. 473, *Hawaii: Its Resources and Trade*, by E. A. Chapman (pp. 22, 10c.); No. 474, *Foreign Markets for Miscellaneous Leather Goods* (pp. 22, 10c.); No. 475, *Foreign Markets for Leather Belting* (pp. 69, 10c.); No. 476, *Ethiopia: Commercial and Economic Survey*, by J. L. Park (pp. 12, 10c.); No. 477, *Paper and Paper Products in Colombia, Venezuela, Ecuador and the Guianas*, compiled by B. M. Frost (pp. 25, 10c.); No. 478, *Foreign Markets for Trunks, Bags and Suitcases* (pp. 54, 10c.); No. 479, *Advertising Automotive Products in Africa*, compiled by J. A. G. Pennington (pp. 28, 10c.); No. 480, *The German Jewelry Industry*, based chiefly on a report by E. W. Magnuson (pp. 24, 10c.); No. 481, *Markets for Motor Boats, Marine Engines and Accessories*, compiled by E. Flehr (pp. 46, 10c.); No. 482, *Foreign Markets for Automobile Servicing Appliances*, by G. E. Haynes (pp. 56, 10c.); No. 483, *Competition in the International Leather Trade*, by J. Schnitzer (pp. 41, 10c.); No. 484, *Origin and Development of the Continental Steel Entente*, by J. J. W. Palmer (pp. 45, 10c.); No. 485, *The Motorization of Germany*, compiled by H. C. Schuette (pp. 38, 10c.); No. 486, *Cooperation Trade of Great Britain*, by A. E.

Boadle (pp. 20, 10c.); No. 487, *Electrical Development and Guide to Marketing of Electrical Equipment in Australia*, compiled by L. D. Batson (pp. 42, 10c.); No. 488, *Foreign Markets for Agricultural Implements*, by C. D. Martin (pp. 45, 10c.); No. 489, *Coal in Europe*, by J. R. Bradley (pp. 37, 10c.); No. 490, *The Paraguayan Market*, by R. S. Smith (pp. 26, 10c.); No. 491, *Travel Routes and Costs in Caribbean Countries*, by M. J. Meehan and C. R. Herron (pp. 42, 10c.); No. 492, *Used-Car Markets of Foreign Countries*, compiled by J. H. Shannon (pp. 14, 10c.); No. 493, *Parana Pine Lumber Industry of Brazil*, by J. C. Kircher (pp. 17, 10c.);

In the Domestic Commerce series have appeared:—No. 10, *Packing for Domestic Shipment: Fiber Containers* (pp. 19, 10c.); No. 11, *Packing for Domestic Shipment: Cleated Plywood Boxes* (pp. 15, 5c.); No. 12, *Packing for Domestic Shipment: Wire-Bound Boxes* (pp. 22, 5c.); No. 13, *Packing for Domestic Shipment: Cooperage and Steel Barrels* (pp. 32, 10c.); No. 14, *Packing for Domestic Shipment: Wooden Boxes* (pp. 33, 5c.); No. 15, *Packing for Domestic Shipment: Nailed Wooden Crates* (pp. 17, 5c.); No. 16, *Packing for Domestic Shipment: Baling* (pp. 18, 10c.).

In the Trade Promotion series:—No. 39, *Railways of South America. Part II: Bolivia, Colombia, Ecuador, Guianas, Paraguay, Peru, Uruguay, and Venezuela*, by W. Rodney Long (pp. xii, 420, 85c.). This contains many useful maps. No. 45, *Exclusive Sales Agreements in Foreign Trade*, by Bernard A. Kosicki (pp. v, 72, 10c.).

The letter from the chairman of the Federal Trade Commission transmitting a report on *Control of Power Companies in the Electric-Power Industry* has been printed as Senate Doc. No. 213, 69th Congress, 2nd session (Washington, 1927, pp. xxxviii, 272). This contains chapters on the extent of control by the General Electric Company, with its subsidiary interests such as the Electric Bond & Share Company, American Gas & Electric Company group, American Power and Light Company group, Electric Power & Light Corporation group, Lehigh Power Securities Corporation group, National Power & Light Company group, Carolina Power & Light Company group, Southeastern Power & Light Company, United Gas & Electric Corporation and affiliates. Other chapters are devoted to the Stone & Webster group, the Byllesby group, the Hodenpyl-Hardy group, the Cities Service or Doherty group, the Barstow group, the White group, the Insull group, etc.

The letter from the chairman of the Federal Trade Commission transmitting a report on *Bakery Combines and Profits* is printed as Senate Doc. No. 212, 69th Congress, 2nd session (Washington, 1927, pp. 95). This discusses the consolidation movement, the effect of the continental consolidation on competition, the super-combination and its dissolution, and profits and costs of the baking industry.

Among the bulletins recently issued by the federal Department of Agriculture are Statistical Bulletin No. 15, *Prices of Farm Products Received by Producers*. 2. *The North Central States* (Washington, May,

1927, pp. 203, 30c.) and 4. *Mountain and Pacific States* (Washington, March, 1927, pp. 152, 25c.)

The Bureau of Railway Economics has issued Bulletin No. 20, *Production and Movement of Fruits and Vegetables, United States, 1925* (Washington, April, 1927, pp. 19).

The United States Tariff Commission has made a report to the President on *Iron in Pigs* (Washington, 1927, pp. 38, 10c.). As a result of this report, President Coolidge ordered an increase in rate of 75 cents per ton to \$1.12½ per ton. Also a report on *The Red Cedar Shingle Industry* (Washington, 1927, pp. 82, 20c.).

Labor

The federal Bureau of Labor Statistics has issued Bulletin No. 434, *Labor Legislation of 1926* (Washington, March, 1927, pp. 58, 10c.).

The following state reports dealing with labor have been received:

Twentieth Biennial Report of the Colorado Bureau of Labor Statistics, 1925-1926 (Denver, pp. 54).

Fourth Biennial Report of the Minimum Wage Department of the Workmen's Compensation Bureau of North Dakota for the Year Ending June 30, 1926 (Bismarck, 1926, pp. 36).

Third Biennial Report of the Industrial Commission of Minnesota (St. Paul, 1927, pp. 206).

Ninth Report of the Industrial Commission of Colorado, 1924-1926 (Denver, 1926, pp. 99). This summarizes the administration of the acts dealing with workmen's compensation, the minimum wage law, and industrial relations.

Public Finance

The following reports dealing with local taxation have been received:

Annual Report of the State Tax Commissioner and the State Board of Equalization and Assessment of Nebraska, 1926 (Lincoln, pp. 127).

Annual Report of the Commissioner of Corporations and Taxation of Massachusetts for the Year Ending November 30, 1926 (Boston, pp. 165).

Fourteenth Report of the State Tax Department and State Board of Assessors, 1925-1926 (Lansing, pp. 164).

Sixth Report of the State Tax Commission of Maryland (Baltimore, 1927, pp. 62).

Laws Relating to Assessment and Taxation in Oregon, 1927 (Salem, pp. 99).

The Report of the Special Tax Investigating Committee of the State of Oregon, authorized by Senate Joint Resolution No. 17 of the legislative session of 1925, has been printed (Salem, 1926, pp. 64).

NOTES

The fortieth annual meeting of the AMERICAN ECONOMIC ASSOCIATION will be held in Washington, D. C., December 27-30, with headquarters at Hotel Washington. There will be one session on post-war price movements, one on the simplification of the federal income tax, one on productive efficiency in the United States, one on the rate and the theory of interest and one on public utility holding companies. Joint sessions will be held with the American Statistical Association, the American Association for Labor Legislation, and joint round table conferences with the Stable Money Association and the Association of Intercollegiate Schools of Business. Professor Harold G. Moulton of the Institute of Economics is the chairman of the committee on local arrangements.

The following names have been added to the membership of the AMERICAN ECONOMIC ASSOCIATION since February 1:

- Adams, L. W., 901 E. Washington St., Ann Arbor, Michigan.
- Alexander, M. L., 383 Madison Ave., New York City.
- Aldredge, E. P., Dept. of Survey, 161 8th Ave., N., Nashville, Tennessee.
- Bernstein, T., 100 Broadway, New York City.
- Bernstein-Kohan, S. V., Great Novinsky St., 3, Apt. 13, Moscow, U. S. S. R.
- Bowman, R. T., 44 Penn St., Washington, Pennsylvania.
- Boyd, G. A., 80 Maiden Lane, New York City.
- Braun, E. W., Box 552, Stanford University, California.
- Bray, G. A., 212 W. Washington St., Chicago, Illinois.
- Brindley, J. E., Iowa State College, Ames, Iowa.
- Bullis, H. A., Comptroller, Washburn Crosby Co., Minneapolis, Minnesota.
- Burr, S. S., 2011 Eye St., N. W., Washington, D. C.
- Cady, G. J., 1218 Elmwood Ave., Evanston, Illinois.
- Cairns, A., Alberta Wheat Pool, Calgary, Alberta, Canada.
- Calhoun, C. P., Ronald Press Co., 15 E. 26th St., New York City.
- Carbo, L. A., Casilla No. 15, Guayaquil, Ecuador.
- Common, R. C., 186 Woodbridge Ave., Buffalo, N. Y.
- Conard, Mrs. L. M., Grinnell, Iowa.
- Cox, H. R., 500 Riverside Drive, New York City.
- Currie, L. B., 5 Crawford St., Cambridge, Massachusetts.
- Dillon, A., Guayaquil, Ecuador.
- Fineberg, A., 69 Washington Place, New York City.
- Foery, R. W., 6 E. Mercer Ave., Llanerch, Del. Co., Pennsylvania.
- Ford, C. M., 109 Woman's Bldg., Urbana, Illinois.
- Foss, W. F., 1227 Prospect Ave., Cleveland, Ohio.
- Gabriel, H. S., University of Delaware, Newark, Delaware.
- Hendricks, H. G., 407 Commerce Bldg., Urbana, Illinois.
- Holmes, L. L., University of Akron, Akron, Ohio.
- Jackson, J. R., Evansville, Indiana.
- Johnson, R. R., Henry Birks & Sons, Ltd., Phillips Sq., Montreal, Canada.
- Kutzb, W., 840 West End Ave., New York City.
- Lombard, N., Room 1403, 104 Fifth Ave., New York City.
- Lundkvist, E. A., University of Washington, Seattle, Washington.
- McAlpin, D., III, 145 E. 54th St., New York City.
- Manning, W. R., 4701 Fessenden St., N. W., Washington, D. C.
- May, R. A., General Motors Japan, Ltd., Tsurumachi 1 Chome, Minatoku, Osaka, Japan.
- Nelson, O. S., Wharton School, University of Pennsylvania, Philadelphia, Pa.
- Nilsson, A. E., Williamsburg, Virginia.
- Romotsky, M., 118-9 Livingston Hall, Columbia University, New York City.
- Sandage, C. H., 308 E. Church St., Iowa City, Iowa.
- Scott, W. E., 1303 E. 60th St., Chicago, Illinois.
- Shann, Professor, University of W. Australia, Perth, W. Australia.

Smith, J. E., Hiram College, Hiram, Ohio.
 Stevenson, R. A., University of Minnesota, Minneapolis, Minnesota.
 Sun, J. H., c/o Mr. W. K. Tang, Nankai University, Tientsin, China.
 Van Pelt, H. W., 1855 Market St., Harrisburg, Pennsylvania.
 Ward, G. H., 16 Bridle Way, Palisades, N. J.
 White, C. L., 10 E. Collins St., Oxford, Ohio.
 Whitelock, O. von S., 100 E. 17th St., New York City.
 Willigan, R. T., 72 Rutland Rd., Brooklyn, N. Y.

The American Council of Learned Societies has appointed a committee to study the national or linguistic stocks in the white population of the United States, with special reference to their number at the beginning of our national history. Different students have reached divergent results on this problem; and it is hoped that a careful study may bring these conclusions into closer agreement. The members of the committee are: R. H. Fife, M. L. Hansen, J. A. Hill, J. F. Jameson and W. F. Willcox, chairman. A grant for \$10,000 has been obtained for the work of the committee, which is likely to begin in the near future.

The Second General Assembly of the Committee of the International Association for Social Progress will meet at Vienna September 14-18. Communications should be addressed to the Secrétariat Général, 1, Rebgasse, Bâle, Switzerland.

The Pollak Foundation prize of five thousand dollars for the best adverse criticism of *Profits*, by Foster and Catchings, has been awarded to R. W. Souter, lecturer in economics at the University of Otago, Dunedin, New Zealand. Honorable mention was given to Alfred Balcom, Acadia University, Nova Scotia; C. F. Bickerdike, London, England; Alvin H. Hansen, University of Minnesota; Calvin B. Hoover, Duke University; Carl S. Joslyn, Harvard University; Percival W. Martin, International Labour Office, League of Nations, Geneva, Switzerland, and Victor V. Novoyilov, Polytechnic Institute, Leningrad, Russia. There were 435 contestants. The best essays have been published and may be obtained from the Pollak Foundation for Economic Research, Newton 58, Massachusetts, price \$1.

The United States Census Bureau has published a monograph entitled *Immigrants and Their Children*, by Niles Carpenter of the University of Buffalo. The study is based on all the available census data on immigration, as well as the material collected in the 1920 census, and constitutes a volume of 430 large octavo pages and 180 tables, besides a number of maps and graphic charts. Another study entitled *Nationality, Color and Economic Opportunity in Buffalo*, edited by Dr. Carpenter, will shortly be published by the University of Buffalo in conjunction with *The Inquiry* of New York City.

The May, 1927, number of the *Columbia Law Review* is devoted to problems of judicial valuation, on which subject Professor Bonbright and his associates are preparing a volume. The four articles here published are "The Problem of Judicial Valuation," by J. C. Bonbright; "Value and Vested Rights," by R. L. Hale; "Going Value in Rate Cases in the Supreme Court," by E. W. Bemis; and "Payment of Dissenting Stockholders," by J. L. Weiner. The authors will welcome comment and criticism.

Beginning with the May issue of the *Federal Reserve Bulletin*, statistical data presented in that periodical have been rearranged and a number of additional tables introduced.

Appleton & Company announces a new series to be devoted to specialized studies of life insurance. Seven volumes have been arranged for. Among them are *Life Insurance: The Economics of Life Insurance*, by S. S. Huebner; *Life Insurance in Relation to Wills, Trusts and Estates*, by J. L. Madden; *Life Insurance in Relation to Taxation*, by H. J. Loman; and *The Law of Life Insurance Salesmanship*, by E. P. Huttinger.

Professor W. Z. Ripley has been awarded the 1926 Harmon Foundation-Survey prize of \$500 for his article, "From Main Street to Wall Street," which appeared in the *Atlantic Monthly* for January, 1926, and which has been published in book form by Little, Brown & Company.

Dr. Walton H. Hamilton is completing this fall, in collaboration with Dr. Helen R. Wright, a book on the *Control of Bituminous Coal*. This will be a companion volume to the *Case of Bituminous Coal* by the same authors, published by the Institute of Economics in 1925.

The Chamber of Commerce of the United States at Washington has appointed a Committee on Taxation to assist the Congressional Joint Tax Committee, and has published a circular requesting suggestions as to desirable changes in the revenue law. The subcommittee of the Chamber of Commerce consists of T. S. Adams, Yale University; George O. May, Price, Waterhouse & Company, New York; W. S. Elliott, International Harvester Company, Chicago; E. E. Gore, Chicago; and W. F. Gephart, First National Bank, St. Louis.

The H. Laupp'sche publishing house of Tübingen announces the early publication of an index of volumes 1-80 (1844-1926) of the *Zeitschrift für die gesamte Staatswissenschaft*. (Price, M. 10.50.)

The second number of volume 82 of the *Zeitschrift für die gesamte Staatswissenschaft* contains a collection of essays in honor of Karl Bücher.

The A. W. Shaw Company of Chicago has been appointed distributors for the *Annals of Economics and Business Administration*, an international quarterly devoted to management science. Articles are published in English, French, Italian, and German. The first number appeared in January, 1927. The subscription rate is \$7 per annum.

The staff of the Library of the Bureau of Agricultural Economics of the United States Department of Agriculture began in January the monthly publication of bulletins containing signed reviews, descriptive notes, and abstracts, including periodical articles in the field of the economics of agriculture.

The Agricultural History Society began in January the publication of a quarterly. This society was founded in Washington in 1919. Three volumes of *Agricultural History Papers* have been published by the society with the assistance of the American Historical Association as part of the

Annual Report of that association. It is now proposed to issue a periodical independently. This first number contains a article on "The Movement for Agricultural Reorganization in the Cotton South during the Civil War," by E. Merton Coulter of the University of Georgia. This is a reprint from the *North Carolina Historical Review*, January, 1927. The secretary-treasurer of the Agricultural History Society is Herbert A. Keller, 679 Rush Street, Chicago, Illinois.

Appointments and Resignations

Professor James P. Adams of Brown University gave a course in public utility regulations at the Northwestern University summer school.

Professor M. D. Anderson has resigned his post of assistant professor of economics at Washington University to accept an appointment as professor of statistics in the College of Commerce and Journalism at the University of Florida.

Mr. Paul P. Ashley has been appointed assistant professor of business administration at the University of Washington, where he will teach business law.

Mr. Louis Bader has been appointed instructor in economics at New York University.

Mr. William H. Bamberg, instructor in accounting at Ohio State University, gave a course in accounting at the summer school of Northwestern University.

Professor Don C. Barrett of Haverford College will give the undergraduate work in money and banking at Princeton University in the first term of this year in place of Professor Kemmerer, whose leave of absence has been extended for another year.

Mr. Clayton C. Bayard of Harvard University is an instructor at Dartmouth College.

Mr. E. R. Beckner, research assistant at the University of Chicago, has been appointed assistant professor of economics at Butler College.

Mr. William W. Bennett, recently assistant in economics at Princeton University, has been made assistant professor of economics at Union College.

Professor George E. Bigge of the University of Michigan has been appointed assistant professor at Brown University, where he will teach the courses in labor problems and personnel management.

Professor John D. Black of the University of Minnesota has been appointed professor of economics and tutor in the division of history, government and economics at Harvard University.

Professor Ernest L. Bogart of the University of Illinois gave courses on the economic history of the United States and on public finance at the summer session of the University of Texas.

Professor Theodore H. Boggs, head of the department of economics at the University of British Columbia, has spent a year as visiting professor in the department of economics at Stanford University, where he taught international trade and labor problems.

Dr. R. P. Brooks, professor of economics and dean of the School of Commerce at the University of Georgia, taught in the summer school of the University of Virginia.

Mr. James Douglas Brown, director of the Industrial Relations Section of the department of economics at Princeton University, has been promoted to the rank of assistant professor of economics.

Mr. Malcolm H. Bryan, associate professor of economics at the University of Georgia, has resigned in order to take up graduate study at the University of Chicago.

Mr. Ralph Cassady, Jr., formerly teaching fellow in economics at the University of California, has been appointed instructor in economics at Princeton University.

Professor Frank T. Carlton, head of the department of economics in De Pauw University, has resigned to accept the professorship in economics at the Case School of Applied Science. During the summer session he offered courses at the University of Southern California.

Mr. J. W. Charlton, assistant in the School of Commerce of the University of Chicago, has been appointed assistant professor of economics at Grinnell College.

Mr. W. C. Cleveland, fellow in economics at the University of Chicago, has been appointed assistant professor at the University of Indiana.

Mr. Denzel Cecil Cline, formerly instructor at the University of Idaho, is instructor in economics at Princeton University.

Dr. Harry T. Collings, professor of commerce at the University of Pennsylvania, attended the Fourth Congress of the International Chamber of Commerce at Stockholm, June 22 to July 2, as a delegate of the Philadelphia Chamber of Commerce. During July Dr. Collings gave lectures on international trade before the University of Kiel. Later he spent some weeks studying European commercial policies in Germany, Austria and Italy.

Professor J. E. Conn has resigned his chair at Beloit College to continue graduate study at the University of Chicago.

Dr. Arthur G. Coons has resigned from the University of California to accept the position of executive secretary of Occidental College as well as an assistant professorship in economics.

Assistant Professor Wilfred H. Crook of Bowdoin College has a leave of absence for the year 1927-28, during which he will complete his study of the general strike in England.

Mr. Joseph E. Cummings, associate professor of economics at the University of Minnesota, died on May 20.

Mr. Morgan B. Cushing returns to Bowdoin College as associate professor of economics after a year of graduate study at Harvard University.

Dean Stuart Daggett, head of the College of Commerce in the University of California, is on sabbatical leave during the year 1927-28. He contemplates an exhaustive study of British and Continental transportation developments, particularly in commercial aviation.

Mr. L. Scott Dayton, instructor in economics at the University of Kansas, has resigned in order to do graduate work at the University of California.

Mr. Prentice N. Dean, formerly instructor in economics at Princeton University, is assistant professor of economics at the University of Pittsburgh.

Mr. Carroll Degler has been appointed an assistant in economics at New York University.

Professor Herbert M. Diamond has resigned as associate professor of economics in New York University to accept a professorship of economics at Lehigh University.

Dr. W. E. Dickerson, assistant in the School of Commerce at the University of Chicago, has been appointed assistant professor of accounting at the University of Kentucky.

Dr. Horace B. Drury has left the staff of the Institute of Economics to take a position on the United States Shipping Board.

Professor Lionel D. Edie has resigned his position in Indiana University to accept the chair of finance at the University of Chicago.

Mr. Lynn R. Edminster of the staff of the Institute of Economics has returned from the University of Virginia, where he served on exchange during the past year as associate professor of commerce and business administration. He is now engaged in a study of the wheat industry in relation to the tariff.

Mr. John Fennelly, who has completed his residence graduate work at Princeton University, is now with the Institute of Economics, and is collaborating with Mr. Lynn R. Edminster in his study of the wheat industry in relation to the tariff. Much of the material gathered for this study will be used in connection with his doctoral thesis.

Dr. Frank Whitson Fetter, for the past year secretary to Professor Kemmerer in Poland, Ecuador and Bolivia, has returned to Princeton University as instructor in economics.

Mr. Ernest L. Fisher, formerly instructor in economics at Rutgers University, is an assistant in economics at Princeton University.

Mr. Charles B. Fowler has been promoted to the rank of assistant professor in economics in charge of labor and monopoly problems at New York University.

Professor Charles A. Glover has been released from Lehigh University to join the editorial staff of the Trade and Securities Service of the Standard Statistics Company.

Mr. Morris C. Gordon, associate professor of commerce at Vanderbilt University, gave a course in corporation finance at the summer school of Northwestern University.

Professor N. S. B. Gras has resigned his chair in economic history at the University of Minnesota to accept an appointment in business history at Harvard University.

Mr. Albert O. Greef of Harvard University has been appointed instructor in general economics at Brown University.

Mr. Eugene Greider of Rutgers University has been promoted to the rank of professor of economics and business management.

Professor Anton de Haas goes from New York University to a Harvard appointment in foreign trade.

Professor Herbert Heaton has left the headship of the department of political and economic science at Queen's University to follow Professor N. S. B. Gras in the chair of economic history at the University of Minnesota.

Dr. Clarence Heer of the research staff of the Bureau of Public Administration, New York City, has been appointed associate professor of economic statistics in the University of North Carolina.

Mr. Guy Hill of Drury College is to be an assistant in economics at New York University.

Professor A. F. Hinrichs succeeds Professor W. A. Berridge as research director of the Brown University Bureau of Business Research.

Mr. Parker M. Holmes, of the University Extension Division of the University of Colorado becomes assistant professor of business administration in the School of Business Administration at the University of Idaho.

Professor John T. Horner of Michigan State College gave a course in problems of coöperative marketing at the Northwestern University summer school.

Mr. John W. Jenkins, professor of business administration at the University of Georgia, returns after spending his sabbatical year at Harvard University.

Dean C. D. Johnson goes from Baylor University to the deanship of the School of Economics at the University of Louisville.

Dr. John Paul Jones, formerly of the State University of Iowa and the University of Pennsylvania, has been appointed assistant professor of economics at Lehigh University.

Mr. Harry Keller has been promoted to the rank of professor of agricultural economics at Rutgers University.

Professor Hugh B. Killough of Brown University is working part time as consulting specialist of the United States Bureau of Agricultural Economics.

Dr. Willford I. King of the National Bureau of Economic Research has been appointed professor of economics in charge of the statistical courses

at New York University. He is introducing a two-year graduate course in statistical technique in the Graduate School of Business Administration.

Mr. J. M. Knappenberger is instructor in economics at the University of Kansas.

Mr. Joseph Stagg Lawrence, instructor in economics during the past year at New York University, has been appointed instructor in economics at Princeton University.

Miss Margaret M. Lothrop has resigned as instructor in sociology in the department of economics at Stanford University.

Dr. Robert J. McFall of the department of agricultural economics at the Massachusetts Agricultural College has resigned to accept a position in the United States Department of Commerce, where he will conduct studies in food supply.

Dr. James D. Magee, formerly with the School of Commerce at New York University, is head of the department of economics in the Graduate School at that same institution and also professor of economics in Washington Square College.

Mr. R. L. Matz of Bucknell University has been appointed instructor in economics at New York University.

Mr. Royal Meeker leaves Carleton College to join Professor Irving Fisher at Yale University.

Professor Richard S. Meriam of Amherst College will teach a course in economics at Harvard University.

Mr. Charles J. Miller has been appointed instructor in business administration at the University of Washington for the year 1927-28, and will teach courses in business correspondence and geographic background of industry.

Mr. Paul L. Miller, associate professor of agricultural economics at Iowa State College gave a course in coöperative management problems at the summer school of Northwestern University.

Mr. George M. Modlin has been appointed instructor in economics at Princeton University.

Dr. Royal E. Montgomery, instructor in industrial relations at the University of Chicago, has been appointed associate professor of economics at the University of Texas.

Dr. Charles S. Morgan of the Institute of Economics has accepted a position as senior economist with the Interstate Commerce Commission.

Mr. Lyle A. Morrison, formerly an instructor in economics at Princeton University, has been appointed an instructor in advanced economic theory at New York University.

Mr. H. B. Myers, research assistant at the University of Chicago, has been appointed assistant professor of economics at the University of Florida.

Mr. Thomas L. Norton has resigned his position as instructor at Brown University to do graduate work at Columbia University.

Dr. E. G. Nourse of the council of the Institute of Economics and chairman of the program committee of the American Institute of Coöperation attended the annual meeting of the latter organization in Chicago in June. Afterwards he went to Cornell University, where he took charge of a summer course on coöperation.

Mr. Victor H. Pelz, associate professor of business organization at Stanford University gave courses in marketing and problems in sales administration at the Northwestern University summer school.

Professor Charles E. Persons will be on sabbatical leave from Boston University in 1927-28. He plans to devote the year to research in the field of labor economics.

Mr. Lloyd B. Raisty has been appointed assistant professor of accounting at the University of Georgia.

Professor C. F. Remer of Williams College gave courses in economics at the University of California summer school.

Professor A. H. Ribbink of the University of Texas School of Business Administration gave a course on the internal organization and management of a cotton business at the summer session.

Mr. Carl B. Robbins is returning to Stanford University this fall as instructor in economics, having spent two years in graduate work at the Harvard Graduate School of Business Administration.

Mr. Harold B. Rowe of the University of Minnesota has been appointed extension professor in agricultural economics at the Massachusetts Agricultural College.

Professor Schneider of the Graduate School of Commerce at Prague will give courses at the University of Chicago during the academic year 1927-28.

Professor Josef Schumpeter of Bonn University is to be at Harvard University during the academic year 1927-28. He will lecture on economic theory and money and banking.

Mr. Robert W. Semenow, secretary of the Downtown Division of the University of Pittsburgh, gave a course in business law at the University of Texas summer session.

Mr. Lewis Severson, lecturer in economics at the University of Chicago, has been appointed associate professor of economics at Beloit College.

Dr. James Gerald Smith, instructor in economics at Princeton University during the past year, has been promoted to the rank of assistant professor at that university.

Dr. Walter E. Spahr has been appointed acting chairman of the economics department at New York University and also placed in charge of the courses in money and banking.

Assistant Professor J. G. Stimmel of De Pauw University has resigned to go to Oklahoma City University.

Mr. Collis A. Stocking, formerly with the University of Vermont, has been appointed an instructor in economics at New York University.

Mr. H. J. Stratton, research assistant at the University of Chicago, has been appointed assistant professor of economics at Bradley Polytechnic Institute.

Mr. Charles M. Strong is appointed associate professor of economics at the University of Georgia.

Dr. Paul Studensky of the National Municipal League has been chosen lecturer in public finance and financial history in the department of economics at the School of Commerce and the Graduate School of Business Administration at New York University.

Dr. Arthur E. Suffern, formerly with the Institute of Economics, and now engaged in research for the Federal Council of the Churches of Christ in America, has been appointed lecturer in industrial relations in the department of economics of the School of Commerce and in the Graduate School of Business Administration at New York University.

Mr. W. G. Sutcliffe leaves Simmons College to accept an appointment as assistant professor in economics at the College of Business Administration of Boston University.

Mr. Glenn W. Sutton has been appointed instructor in economics in the School of Business Administration of the University of Idaho. He comes from the Bureau of Business Research at the University of Indiana.

Dr. John A. Todd, dean of the School of Commerce of Liverpool, England gave courses at the summer session of the University of Texas.

Mr. George H. Trafton of the University of Wisconsin is an instructor at Dartmouth College.

Professor Jacob Viner of the University of Chicago has been granted a leave of absence during the autumn quarter and will spend that period in Europe.

Mr. Frank T. deVyver, formerly of Oberlin College, is an assistant in economics at Princeton University.

Dr. Benjamin B. Wallace, who has been working with the Institute of Economics during the past year on leave of absence from the United States Tariff Commission has returned to the Commission, having virtually completed his study of the *Control of Trade in Raw Materials*.

Professor Ray B. Westerfield of Yale University is dean of the faculty of the second annual cruise of the "University Afloat," on the steamship Ryndam, sailing round the world, September 20 to May, 1928.

Mr. S. W. Wilcox, assistant in the School of Commerce at the University of Chicago, has been appointed chief of the Division of Statistics of the Illinois State Department of Labor.

Mr. William H. Withers has been appointed instructor in economics at Lehigh University.

Professor Frederick M. Woodbridge, adjunct professor of accounting in the University of Texas, has resigned to accept an associate professorship of accounting at Lehigh University.

ber

has
nic

at

sen
co-
ess

ow
in
rt-
of

nt
on

ne
es

d

t

a

u

a

e

i